Work Order ID 90777 *90777* Page 1 *September-26-12 3:26:22 PM Item ID: D350-636-016 Accept *N900040100* Setup Start Revision ID: : Skidtube STD w/ Training Wearplates, RH Item Name: **Start Date:** 9/26/12 Start Qty: 1.00 **Cust Item ID:** Required Date: 10/19/12 Req'd Qty: 1.00 **Customer:** Reference: Run Process Plan: MLJ Date: 12 09-26 Tooling: Approvals: Stop Date: _____ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Accept Tool ID Reject Tool # Plan Reject Insp. **Work Center ID** Description Run Hours Qty Code **Qty** Number Stamp Draw Nbr **Revision Nbr** D3492 C D4168 Α IIN-D350-636

MUS. 12-10-24

100

100

DOCUMENT CONTROL

Memo 0.00

Document Control

Photocopy blue file and type labels per PPP D350-636-016 $\,$ CHG 004 $\,$

0.00

| | | | | | | | | | | | DQA: | Date: | · • |
|---|---|---------|------|-----|--------|--|-----|--|--|----------------------------------|--|--|--|
| NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE | | | | | | | | | | | | 2 to 100 | |
| | | | | | - | | | | | | QA Closed: | Date: | * |
| Nork Orde | er: | | | | | DISPOSITION | | | AG | GAINST DEI | PARTMENT/ | PROCESS | |
| Part I | ۱o. • | | | | | Rework Scrap Use-as-is Work Order Update | | Therm | Machining Sm noforming Fir | osstube nall Fab nishing nposite | | Water Jet d. Eng. Coor. e/Packaging Supplier | Engineering Quality Other |
| Root | | | | | Descri | ption of work order update | ı | nitial | Action | | Sign & | | |
| Cause | | Date | Step | Qty | | or Non-conformance | Ch | ief Eng | Description | 1 | Date | Verification | QC Inspector |
| oc/Data quip/Tooling perator Material etup Other rocess upplier raining | Oata | | | | | | | | · | | | | |
| | | | | | | F. | AUL | T CATE | GORY | | | | |
| Landi | ng (| Gear | | | | General | | | | | , , | | _ |
| | Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs' Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence | | | | | Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish | | Instruct Mainte Mislabe Misread Offset Out of (| on Incomplete ions Incomplete/Unclear nance led | r | Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned W Power Loss/ | ssing Vrong | Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other |
| | | Wave/Tw | - | e | | Folio | | i | Dimensions | | | | |

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NS2

Insp.

Number Stamp

Reject

| September-26-1 | 12 3:26:22 F | РМ | | 907 | | | | | | |
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| Item ID: Revision ID: | D350-636- | 016 | | Accept | *N900 | 0040 | 100 |)* s | Setup | Start |
| Item Name: | Skidtube ST | D w/ Training Wearplate | es, RH | | | | | | | Stop |
| Start Date: | 9/26/12 | Start Qty: 1.00 | *1* | | Cust Item | ID: | | , | | |
| Required Date | : 10/19/12 | Req'd Qty: 1.00 | *1* | | Customer: | | | | | |
| Reference: | | | | | | | _ | r | Run | Start |
| Approvals: | Process P | lan: | Date: | Tooling: | D | oate: | | Г | L uii | |
| 44 | QC: | | Date: | SPC (Y/N): | D | ate: | | | | Stop |
| Sequence ID/ Work Center I | I D | Operation Description | | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Rej Qty | |
| 3410 * | | Skidtubes | | 0.00 | | | | | | |
| Skidtubes Skidtubes | | Memo 1- Pick D2 | 600-3 Bent | 0.00 | | | | | | |
| | | | FWD and AFT ends, remo | ove bending marks. Scribe t | oatch# inside | | | | | |
| R. | | 3- Drill pile deburr, sec | | oolt holes using DT8983. O | pen to 0.500", | | , | | | |
| | | | OT8329 off of blade fitting tion R-R and open to 0.50 | g bolt holes and drill pilot h 00" | noles for blade | | | , , | 10/ | , |
| | | | d step holes using DT961 1168 Detail J | 6. Ensure proper positioning | g. All holes as | | $>$ \mathcal{S}_{i} | E 12/0 | 0/0 | 2 |
| ·# | , i | | | 8 sheet 5 (D4168-2 details) le only DT8863B for second | | | | | | |
| | | | OT8863B on second side ND SIDE*** | of tube and drill pilot holes | for detail K. | | | | | |
| | | 8-Drill mos | st FWD wearplate hole us | ing DT9678 locating of 66. | 54" hole | | | | | |

fwd saddle holes (detail L) to .500". For inspection purposes only.

from bending as per QSI 004

9-Open up holes of Detail J to 0.297" (total of 2 holes per side) +.201 iplace per side and open holes of detail M section R-R to 0.500" as per dwg D4168. Open 10-Weld D2744 Cap as per Dwg D4168 and QSI 004.Fill grooves in bend left

| | | | | | | | | | | | DQA: | Date | : <u> </u> |
|--|--------------------------|--------------------------------|---------------|------------|--------------|-------------------------------------|----------|-----------------|--------------------------------------|------------------|------------------------------|-------------------------------------|----------------------------------|
| NCR: | Yes | / No | | | | WORK ORDER NON-C | COL | NFORM | AANCE / UPDATI | | | | 3 4 4 |
| | | | | | | | | | | | QA Closed: | Date | |
| Nork Ord | er: | | | | | DISPOSITION | | | A | GAINST DEF | PARTMENT/ | PROCESS | |
| Part | No. | | | | | Rework Scrap Use-as-is | | ı | Machining Sn | osstube mall Fab | | Water Jet J. Eng. Coor. e/Packaging | Engineering Quality Other |
| NCR | No. | - | | | | Work Order Update | | | - | mposite | Nec/3tor | Supplier | |
| Root | | | | | Descri | ption of work order update | 1 | nitial | Action | | Sign & | | |
| Cause | | Date | Step | Qty | | or Non-conformance | Ch | ief Eng | Description | n | Date | Verification | QC Inspector |
| oc/Data quip/Tooling perator laterial etup ther rocess upplier raining napproved | | | | | | | | | · | | | | |
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| Land | ing (| 1 | | | | General | | ı | | | | | _ |
| | L | Bending Centre No Cracks | ot Concer | ntric to (| o/s - | Bend BOM/Route Broken/Damaged | | Grain Hardwa | | | Ovalized Over/Under | — | Pressure/Forced Temperature/Cure |
| | 一 | Crushed/0 | Crimped | | - | Burrs | \vdash | | on Incomplete ons Incomplete/Unclea | | Part Incorrect Part Lost/Mis |) | Weld . Wrong Stock Pulled |
| | T | Cuffs | p c c. | | <u> </u> | Contamination | \vdash | Mainte | • | | Part Moved | 53116 | . Wrong stock runeu |
| | Г | Heat Trea | t | | | Countersink | — | Mislabe | | | Positioned W | /rong | |
| | Inspection Strip in Tube | | | | | Cut Too Short | | Misread | | | Power Loss/S | · - | Other |
| | | Ripples in | Bend | | | Drill Holes | | Offset | | | · | | |
| | | Torque W | aves in E | xtrusion | n 🗀 | Drawing | | Out of C | alibration | • | | | |

Out of Sequence

Outside Dimensions

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Turning Sequence

Wave/Twist in Tube

Finish

| *Work Ord September-26-1 | | | | *907 | 77* | | | | | | | Page 3 |
|------------------------------------|---------------------|------------------------------------|------------------------|----------------------------------|--------------------------|------------|--------------|--------------|--------------|-------|------------------|----------------|
| Item ID: Revision ID: | D350-636-0 | 16 | | Accept | *N900 | 040 | 100 |)* | Setup | | *N! | S1* |
| Item Name: | Skidtube STD | w/ Training Wearplates | , RH | | | | | | | Stop | *N: | S2* |
| Start Date: Required Date: | 9/26/12 10/19/12 | Start Qty: 1.00 Req'd Qty: 1.00 | *1* *1* | | Cust Item I Customer: | D: | | | | | | |
| Reference: Approvals: | Process Pla | an: | Date: | Tooling: | Da | ıte: | - | | Run | Start | *N | R1* |
| | QC: | | Date: | SPC (Y/N): | Da | ite: | | | | Stop | *N! | R2* |
| Sequence ID/ Work Center II | D | | num Rod batch: 🖋 | Set Up/ Run Hours 01/22399 | Tool ID BE 12/10/02 | Tool # | Plan Code | Accep Qty | t Rej Qty | | Reject Number | Insp. Stamp |
| 120 *120* QC Quality Control | | QC10- Inspect visual per | QSI004- ground weld | s 0.00 AS 16 | 7110102 | | | | | | | |
| *130 | | QC5- Inspect part comple | eteness to step on W/C | 0.00 AS 1 | 12/10/02 | | | | | | | |
| QC | | Memo | | دل في 0.00 | | | | | | | | |

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Quality Control

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| NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE | | | | | | | | | | | | | 50 A B |
| | | | | | | | | | | • | QA Closed: | Date: | , |
| Work Ord | er. | | | | | | DISPOSITION | | | AGAINST E | PEPARTMENT | /PROCESS | |
| ··· | | | | | | | Rework | | | Skid-tube Crosstube | | Water Jet | Engineering |
| Part | No. | | | | | | Scrap | | | Machining Small Fab | Pro | d. Eng. Coor. | Quality |
| | | | | | | | Use-as-is | | | noforming Finishing | | re/Packaging | Other |
| NCR | No. | | | | | | Work Order Update | | | Large Fab Composite | | Supplier | |
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| Root | | _ | | _ | Des | | otion of work order update | 1 | nitial | Action | Sign & | | |
| Cause | т- | Date | Step | Qty | | | or Non-conformance | Ch | ief Eng | Description | Date | Verification | QC Inspector |
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| raining | |] | | | | | | | 1/2 | | | | |
| Inapproved | | | | | | | | | , K | | | | |
| | | | | | 184 | | F/ | AUL | T CATE | GORY | | | |
| Land | ing (| 1 | | | 1 | | General | | 7 | - | | _ | _ |
| | _ | Bending | | | | | Bend | - | Grain | | Ovalized | | Pressure/Forced |
| | Centre Not Concentric to O/S BOM/Route | | | | | | | | Hardwa | - | Over/Under | | Temperature/Cure |
| | Cracks Broken/Damaged | | | | | | | _ | | ion Incomplete | Part Incorre | <u> </u> | Weld |
| | Crushed/Crimped. Burrs | | | | | | | _ | 4 | ions Incomplete/Unclear | Part Lost/M | issing | Wrong Stock Pulled |
| | Cuffs Contamination | | | | | | | L | Mainte | - | Part Moved | | |
| | - | Heat Trea | | - 1 | | | Countersink | \vdash | Mislabe | | Positioned \ | | 7 |
| | — | Inspection | • | Tube | | | Cut Too Short | Misread Power Loss/Surge Other | | | Other | | |
| | - | Ripples in | | | | | Drill Holes | Offset | | | | | |
| | Torque Waves in Extrusion Drawing | | | | | | | Out of Calibration | | | | | |
| | 1 | Turning So | equence | | | | Finish | 1 | Out of S | Sequence | | | |

Wave/Twist in Tube

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| Work Orde September-26-12 | | | | *907 | 777* | | | | | | | Pa | ge 4 |
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| Item ID: Revision ID: Item Name: | D350-636- | 016 D w/ Training Wearplates | , RH | Accept | *N900 | <u>040</u> | 100 |)* | - | Start Stop | 1/3 | S1 ² | |
| Start Date: Required Date: Reference: | 9/26/12 10/19/12 | Start Qty: 1.00 Req'd Qty: 1.00 | *1* *1* | | Cust Item I Customer: | D: | | | | | | | |
| Approvals: | Process P QC: | | Date: | Tooling: SPC (Y/N): | · · · · · · · · · · · · · · · · · · · | ate: | | | | Start Stop | I/I | R1 ¹ | |
| Sequence ID/ Work Center II 140 *140* HandFinish Hand Finishing |) | Operation Description Chemical Conversion Co | at per QSI005 4.1 | Set Up/ Run Hours 0.00 | Tool ID | Tool# | Plan Code | Accep Qty | t Reject Qty | | Reject Number | Insp. Stamp | p |

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Quality Control

QC7-Inspect Chemical Conversion Coat

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| NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE | | | | | | | | | | | | | | |
| | | | | | | | | | | | Q/ | A Closed: | Date: | , |
| Work Ord | er: | | | | | | DISPOSITION | | | AGAINST [| DEPA | RTMENT/ | PROCESS | |
| Part I | ۱o. | | | | | | Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite | | | noforming Finishing | | | Water Jet d. Eng. Coor. re/Packaging Supplier | Engineering Quality Other |
| Root | | | | | Des | cri | otion of work order update | | nitial | Action | | Sign & | | |
| Cause | | Date | Step | Qty | | C | or Non-conformance | Ch | ief Eng | Description | | Date | Verification | QC Inspector |
| oc/Data quip/Tooling Operator Material etup Other Process upplier Training | Oata //Tooling // ator // rial // rial // riss // riss // ring | | | | | | | | | | | | | |
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| Landi | ng (| Gear | | • | | | General | | | _ | | | _ | _ |
| | Cracks ◆ Broker Crushed/Crimped Burrs Cuffs Contan Heat Treat Count | | | | | | BOM/Route Broken/Damaged Burrs Contamination Countersink | | Instruct Mainte Mislabe | on Incomplete ions Incomplete/Unclear enance eled | Ov Pa Pa Pa Po | valized ver/Under art Incorrect art Lost/Mi art Moved ositioned V | ct ssing Vrong | Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled |
| | | | | lube | | <u> </u> | Cut Too Short | | | | | Other | | |
| | | Ripples in | | | | <u> </u> | Drill Holes | Offset Out of Calibration | | | · | | | |
| | | Torque W | | | 1 | <u> </u> | Drawing Finish | - | 1 | Calibration | _ | | | |
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Wave/Twist in Tube

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| September-26-12 | | | | *9()7 | 77* | | | | | | | Pag |
|--|----------------------------|---|---|---|--|--------------|--------------|------------|-------------|---------------|--------|------------------------------------|
| Revision ID: | D350-636-0 Skidtube STD | 16 w/ Training Wearp | lates, RH | Accept | *N900 | <u>)</u> 040 | 100 |)* | Setup | Start Stop | _ | S1 [*] S2 [*] |
| Start Date: Required Date: Reference: | 9/26/12 10/19/12 | Start Qty: 1.00 Req'd Qty: 1.00 | • | | Cust Item Customer: | | | | | | | |
| Approvals: | Process Pla | ın: | Date: | Tooling: | I | Date: | | - | | Start | *N | R1 ³ |
| | QC: | | Date: | SPC (Y/N): | r | Date: | · | | | Stop | *N | R2 |
| Sequence ID/ Work Center II 160 *160* Skidtubes Skidtubes | | side) as per d 2-Open as per d 3- Open per side 4-Cham (welding 5-Debut 6- Preps 7-Bond A/R 8- Weld (welding | wg D4168. up holes of Detail K to wg D4168. If float hole to 0.500" (4) If the holes of Detail K,L, g instructions on sheet 9 rr and blow out all chips are tube for welding, ren web D2739 in place as Sikaflex-291 batch I spacers D3490-1, D349 g instructions on sheet 8 | s from inside of tube nove alodine as required. per QSI 015 ch: 123025 exp. date: 13/06/22 90-3 and D2743 as per dwg D4168 | les to .375" 4 er dwg D4168 8 & QS1004 | Tool# | Plan Code | Accept Qty | Reje Qty | | Reject | Insp. Stamp |
| | | 9- At se 10-Grin | ction AP-AP drill out x- d welds flush as per Dw | bolt spacer to 0.404" \\ g D4168 | -12/10/03 0/10 | | | | | | | |

| NCR: | Yes | / | No |
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|---|--|-------------|---------|---------|------------|--|--|--------------------|-------------------|--|----------|---|--|---------------------------------------|
| NCR: | · | | | | | | | | | | | | | |
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| Part NCR | No. | | | | | | Rework Scrap Use-as-is Work Order Update | | Thern | Skid-tube Crosstube Machining Small Fab noforming Finishing Large Fab Composite | | | Water Jet d. Eng. Coor. e/Packaging Supplier | Engineering Quality Other |
| | | | | | | | | | | | | · · · · · · · · · · · · · · · · · · · | | |
| Root Cause | | Date | Step | Qty | Des | | otion of work order update or Non-conformance | l | nitial ief Eng | Action Description | | Sign & Date | Verification | QC Inspector |
| oc/Data | 1 | Date | эсер | Qty | | | 1 Won-comormance | Cit | iei Liig | Description | | Date | verification | QC IIISPECTOI |
| quip/Tooling perator laterial | | | | | | | | | | · | | | | |
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| Land | ing (| Gear | | | | | General | | 1 | | _ | , | | _ |
| | Bending Centre Not Concentric to O/S | | | | | | Bend BOM/Route Broken/Damaged | | Grain Hardwa | | \vdash | Ovalized Over/Under Part Incorred | | Pressure/Forced Temperature/Cure Weld |
| | | | | | | | • | | 1 | ion Incomplete | <u> </u> | ł | | - |
| | | | | | | | Burrs Contamination | - | Mainte | ions Incomplete/Unclear | - | Part Lost/Mi | 22111B | Wrong Stock Pulled |
| ├ ─┤ | | | | | | | Countersink | | Mislabe | | \vdash | Part Moved Positioned V | Vrong | |
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| - | Turning Sequence Finish | | | | | | - | | ł | | | | | |
| | 1 | Learning Se | equence | | 1 | | Finish | | JUUT OF S | Sequence | | | | |

Wave/Twist in Tube

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| Work Ord | | | | *907 | 777* | | | | Page 6 |
|---|------------|------------------------------------|------------------------|--|--------------------------|-------|------------|------------------|---------------------------|
| Item ID: Revision ID: Item Name: | D350-636-0 | 016 D w/ Training Wearplates | ри | Accept | *N900 | ი4ი1ი | N * | Setup Star | 1/2/1 |
| Start Date: Required Date: Reference: | 9/26/12 | Start Qty: 1.00 Req'd Qty: 1.00 | *1* *1* | | Cust Item I Customer: | D: | | | " *NS2* |
| Approvals: | | an: | | | | ate: | - | Run Star Stop | "NR1" |
| Sequence ID/ Work Center II | D | 12- C'bore se 13- Deburr h | ection CH-CH loles | Set Up/ Run Hours ction (total of 4 places per leading) Z | 10-10 | | e Qty | Reject Qty | Reject Insp. Number Stamp |
| 170 *170* QC Quality Control | | QC10- Inspect visual per | QSI004- ground welds | 0.00 PAS 0.00 16 | Stropil | | | ··· | |
| *180 *180* | | QC5- Inspect part comple | eteness to step on W/O | 0.00 16 | Nestr | | | | |

Quality Control

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| | | | | | | | | | | | QA Closed: | Date: | |
| Nork Ord | ler: | | | | | | DISPOSITION | | | AGAINST D | EPARTMENT | PROCESS | • |
| Part NCR | No. | | | | | | Rework Scrap Use-as-is Work Order Update | | | Skid-tube Crosstube Machining Small Fab noforming Finishing Large Fab Composite | - | Water Jet d. Eng. Coor. re/Packaging Supplier | Engineering Quality Other |
| Root | | | | | Desc | rip | otion of work order update | | nitial | Action | Sign & | | |
| Cause | | Date | Step | Qty | | O | r Non-conformance | Ch | ief Eng | Description | Date | Verification | QC Inspector |
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| Land | ing (| Gear | | | | | General | | - | | | | |
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| | | | | | | | Broken/Damaged | | Inspect | ion Incomplete | Part Incorre | ct | Weld |
| | Crushed/Crimped Burrs | | | | | | • | | 1 . | ions Incomplete/Unclear | Part Lost/M | issing | Wrong Stock Pulled |
| | Cuffs Contamination | | | | | | | | Mainte | · · · · · · · · · · · · · · · · · · · | Part Moved | · _ | ı ~ |
| Heat Treat Countersink | | | | | | | | | Mislabe | <u> </u> | Positioned V | Vrong | |
| Inspection Strip in Tube Cut Too Short | | | | | | | | | Misread | | Power Loss/ | | Other |
| | | | | | | | Drill Holes | Offset | | | | | |
| Torque Waves in Extrusion Drawing | | | | | | | | Out of Calibration | | | | | |
| | | Turning S | | | | - | Finish | Out of Sequence | | | | | |

Wave/Twist in Tube

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| Work Ord | | | | *907 | 777* | | | | | | | Page 7 |
|-------------------------------|-------------|--------------------------|----------------------------|------------------------------|-------------|--------------|--------------|---------------|---------------|---------------|------------------|----------------|
| Item ID: Revision ID: | D350-636-0 | | | Accept | *N900 | 040 | 100 |)* | Setup | Start Stop | I VI. | S1* |
| Item Name: | Skidtube ST | D w/ Training Wearplates | | | | | | | | Stop | *N: | S2* |
| Start Date: | 9/26/12 | Start Qty: 1.00 | *1* | | Cust Item 1 | ID: | | | | | | |
| Required Date: | : 10/19/12 | Req'd Qty: 1.00 | *1* | | Customer: | | | | | | | |
| Reference: Approvals: | Dragge D | lan: | Date: | Tooling: | | | _ | | Run | Start | *NI | R1* |
| Approvais. | | iaii. | | | | ate: ate: | | | | Stop | *N | R2* |
| Sequence ID/ Work Center I | D | Operation Description | | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | t Reje Qty | | Reject Number | Insp. Stamp |
| 190 | | Pressure Wash per QSI00 | 05 4.3 | 0.00 | | | | | | 12 | | |
| *190* HandFinish | | Memo | | 0.00 | | | | | 9 | B | 12- | 10-4 |
| Hand Finishing | | Re-alodine t | ube as per QSI 005 section | on 4.1.2.1 do not acid etch. | | | | | | | | |
| 200 | | White Gloss(Ref:4.3.5.1) | per QSI005 4.3-Alum | 0.00 | | | | | | | | ML |
| *200* | | | - (1) | 0.00 | | | | /X 1. | 1 | | | 12/1 |
| Powdercoat Powder Coating | 2 | Memo START TIM | ie: $\frac{2}{3}$ / 10 | 2,000 | | | , | | | | | 12/10/ |
| w (2) | L878 | OVEN TEM FINISH TIM | PERATURE: 3 | χυ ^υ · | | | | | | | | |
| 210 | | QC3- Inspect Part Finish | 0.70 | 0.00 | | | | | | 1 | 0 # 1 | 1 / |
| *210* | | | | 0.00 | | | | 13 | <u>H</u> | 4 | H | 11/10/ |
| Quality Control | | Memo Inspect for fo | oreign object per QSI 02- | 0.00 4 | | | | | | 1 | | |

| 1 | NCR: | Yes | / No |
|---|------|-------|------|
| I | NUR: | . yes | / NO |

Root Cause Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved

| | | | | | | | | | DQA: | Date: _ | |
|---------------|--------|------|-----|-----|----------------------------|------------|-------------|------------|------------|---------------|--------------|
| NCR: Yes | s / No | | | | WORK ORDER NON-C | ONFO | RMANCE / UP | DATE | | | ā 1 vj |
| | | | | | | | | | QA Closed: | Date: | • |
| Work Order: | | | | | DISPOSITION | | | AGAINST DE | PARTMENT | /PROCESS | |
| | - | | | | Rework | . . | Skid-tube | Crosstube | | Water Jet | Engineering |
| Part No. | | | | | Scrap | | Machining | Small Fab | Pro | d. Eng. Coor. | Quality |
| | | | | | Use-as-is | The | rmoforming | Finishing | | re/Packaging | Other |
| NCR No. | · | | | | Work Order Update | | Large Fab | Composite | | Supplier | |
| | | | | | | | | | | | |
| Root | | | | | otion of work order update | Initial | | tion | Sign & | | |
| Cause | Date | Step | Qty | . 0 | or Non-conformance | Chief Er | g Desc | ription | Date | Verification | QC Inspector |
| Doc/Data | 1 | | | | | | | | | | |
| Equip/Tooling | 1 | | | | | | | | | | |
| Operator | | | | | | | · | | | | |
| Material | | | | | | | | | | | |
| Setup | | | | | | | | | | | |
| Other | | | | | | | | | | | |
| Process |] | | | | Δ | | | | | | |
| Supplier | | | | | · | | | | | | · |
| Training | | | | | , | | | | | | |
| Unapproved | | | | | | | | | | | |
| | | | | • | F/ | AULT CA | regory | | | | |

| Landin | g Gear | General | | | | | | • |
|--------|------------------------------|----------------|---|---------------------------------|---|----------------------|---|--------------------|
| | Bending | Bend | | Grain | Г | Ovalized | | Pressure/Forced |
| | Centre Not Concentric to O/S | BOM/Route | | Hardware | Г | Over/Under tolerance | | Temperature/Cure |
| | Cracks | Broken/Damaged | | Inspection Incomplete | Г | Part Incorrect | | Weld |
| | Crushed/Crimped. | Burrs | | Instructions Incomplete/Unclear | Г | Part Lost/Missing | Г | Wrong Stock Pulled |
| | Cuffs | Contamination | Г | Maintenance | Г | Part Moved | | - |
| | Heat Treat | Countersink | Г | Mislabeled | | Positioned Wrong | | |
| | Inspection Strip in Tube | Cut Too Short | | Misread | | Power Loss/Surge | | Other |
| . [| Ripples in Bend | Drill Holes | | Offset | | _ | _ | |
| | Torque Waves in Extrusion | Drawing | | Out of Calibration | | | | |
| | Turning Sequence | Finish | | Out of Sequence | | | | |
| ſ | Wave/Twist in Tube | Folio | | Outside Dimensions | | <u> </u> | | |

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| Work Orde September-26-12 | | | | *907 | | | Page 8 | | | | |
|---|---------------------|------------------------------------|------------------------|----------------------------|-----------------------|------------|--------------|---------------|-----------------|------------------|----------------|
| Item ID: Revision ID: | D350-636-0 | 16 | | Accept | *N900 | 040 | 100 |)* s | etup Star | 1 7 | IS1* |
| Item Name: | Skidtube STD | w/ Training Wearplates | RH | | | | | | Stop | , * N | IS2* |
| Required Date: | 9/26/12 10/19/12 | Start Qty: 1.00 Req'd Qty: 1.00 | *1* *1* | | Cust Item I Customer: | D: | | | | | |
| Reference: Approvals: | | an: | Date: | | Da | ate: | | R | un Star Stoj | 17 | IR1* |
| | QC: | | Date: | SPC (Y/N): | Da | ate: | | | 2001 | *N | R2* |
| Sequence ID/ Work Center II |) | Operation Description | | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
| 220 * 20 * 20 *HandFinish | | HandFinishing Memo | | 0.00 | | | | 1BH | -4 | H | 11/0/12 |
| Hand Finishing | | | erts as per Dwg D416 | 3 | | | | | · | | |
| 230 | | HandFinishing | | 0.00 | | | | 1 R | H 4 | M. | 11 (0) (20 |
| *230* HandFinish Hand Finishing | 4 | Memo | Foreign Objects | 0.00 | | | | | | | - 1 |
| · · | , | 2-Spray insid | le of tube with "LPS-3 | " batch: NA | | | | | | | |
| • . | | 3-Install blac per dwg D41 | | wearshoes and ground handl | ing hardware as | | | | | | |

4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube A/R 55-o'ring lube batch: ΛΛ (2) (e ≤ i

SIKA FLEX 241
BATCH: 1/1 23025
EXP DATE: 13103

5-Coat all exposed fasteners with "LPS Procyon" batch: MILLUS96

| NCR. | Ves | 1 | No |
|------|-----|---|----|

| | | | | | | | | | | | | DQA: | Da | te: | |
|---------------------------------|----------|-----------|----------|------------|-------|-----|--------------------------------|-----------------|----------|--|-----|---------------|----------------------------|--|---------------------|
| NCR: Y | 'es | / No | | | | | WORK ORDER NON-C | 100 | NFOR | MANCE / UPDATE | | · | | | |
| | | | | | | | · . | | | • | | QA Closed: | Da | te: | |
| Work Orde | er: | | | | | | DISPOSITION | | | AGAINS | T D | PARTMENT | PROCESS | | • |
| Part N | • | | • | | | | Rework Scrap | | ı | Skid-tube Crosstub Machining Small Fa | b | 4 | Water Jet d. Eng. Coor. | | Engineering Quality |
| NCR N | lo. | | | | | | Use-as-is Work Order Update | | | noforming Finishir Large Fab Composit | _ | Rec/Stor | e/Packaging Supplier | _ | Other |
| Root | | | | | Descr | rip | tion of work order update | 1 | nitial | Action | | Sign & | | | |
| Cause | | Date | Step | Qty | | 0 | r Non-conformance | Ch | ief Eng | Description | | Date | Verificatio | n | QC Inspector |
| oc/Data quip/Tooling | | | | | | | | | | | | | | | |
| perator | _ | | | | | | | | | | | | | | |
| laterial | \dashv | | | | | | | | | | | | | | |
| etup | | | | | | | | | | | | | | | |
| ther ' | _ | | | | | | | | | | | | | | |
| rocess | _ | | | | | | | | | | | | | | |
| upplier | _ | | | | | | | | | | | | | | |
| raining | 4 | | | | | | | | | | | | | | |
| napproved | | | | | | | | i | | | | | | | |
| | | | | | | | | AUL | T CATE | GORY | | | | | |
| Landir r | | | | | _ | _ | General | | | | | - 1 | | _ | _ |
| | | Bending | | | _ | | Bend | - | Grain | | | Ovalized | | $ldsymbol{ld}}}}}}$ | Pressure/Forced |
| | _ | Centre No | t Concer | ntric to (| o/s | _ | BOM/Route | | Hardwa | re | L | Over/Under | tolerance | | Temperature/Cure |
|] | | | | | | | Broken/Damaged | L | Inspecti | on Incomplete | | Part Incorred | ct | L | Weld |
| Crushed/Crimped. | | | | | | ╝ | Burrs | | Instruct | ions Incomplete/Unclear | L | Part Lost/Mi | ssing | L | Wrong Stock Pulled |
| Cuffs | | | | | | | Contamination | | Mainte | nance | L | Part Moved | | | |
| Heat Treat Co | | | | | | | Countersink | | Mislabe | led · | | Positioned V | Vrong | | _ |
| Inspection Strip in Tube Cut To | | | | | | | Cut Too Short | | Misread | I | | Power Loss/ | Surge | | Other |
| Ripples in Bend Drill I | | | | | | | Drill Holes | | Offset | | | _ | | | |
| Torque Waves in Extrusion Dra | | | | | | | Drawing | | Out of 0 | Calibration | | - | | | |
| Turning Sequence | | | | | | | Finish , | Out of Sequence | | | | | | | |

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Wave/Twist in Tube

| Work Ord | | | | * <u>9</u> 07 | 77* | | | | | | Page 9 |
|--|-------------|--|-----------------------|--|------------------------|------------|--------------|---------------|-----------------|------------------|----------------|
| Item ID: Revision ID: Item Name: | D350-636-0 | | RH | Accept | *N900 | 040 | 100 |)* | Setup Sta | I VI | S1* S2* |
| Start Date: Required Date: Reference: | 9/26/12 | Start Qty: 1.00 Req'd Qty: 1.00 | *1* *1* | | Cust Item II Customer: | D: | | | | IV | . 7/ |
| Approvals: | Process Pla | ın: | Date: | Tooling: SPC (Y/N): | | ite: | | | Run Sta Sto | 1/1 | R1* R2* |
| Sequence ID/ Work Center II 240 *240* QC Quality Control | D | Operation Description QC5- Inspect part comple | teness to step on W/O | Set Up/ Run Hours 0.00 Sinb 0.00 D. 10.16 | Tool ID | Tool# | Plan Code | Accept Qty | t Reject Qty | Reject Number | Insp. Stamp |

250

Pick Kit

0.00

250 Packaging

Memo

Packaging

If making a D350-636-216 pick kit will only requires:

1 X AN3C37A 1 X AN3C34A 1 X AN3C42A 2 X D3493-1

0.00

260

QC4-100% Inspect kits for completeness

260

Memo

Quality Control

******ensure antiseize is on AN8C21A bolts******

| | | | | | | | | | | | DQA: | Date: | 1 |
|--------------|---------|------------|------------|-------------|-----------|------------------------------|--------------------|----------|-------------------|------------|---------------|---------------|--------------------|
| NCR: | Yes | / No | | | | WORK ORDER NON-C | CO | NFORM | ΛANCE / UPI | DATE | • | | |
| | | | | | | | | | | | QA Closed: | Date: | , |
| Vork Ord | er. | | | | | DISPOSITION | | | | AGAINST DE | PARTMENT | PROCESS | |
| VOIN OIG | | | | | | Rework | 1 | | Skid-tube | Crosstube |] | Water Jet | Engineering |
| Part | Vo. | | | | | Scrap | | | Machining | Small Fab | Pro | d. Eng. Coor. | Quality |
| | | | | | | Use-as-is | | | noforming | Finishing | Rec/Stor | e/Packaging | Other |
| NCR | Vo. | | | | | Work Order Update | ┚╽ | | Large Fab | Composite |] | Supplier |] [] |
| Root | | | | | Descr | liption of work order update | Н | nitial | Act | ion | Sign & | | |
| Cause | | Date | Step | Qty | 1 | or Non-conformance | 1 | ief Eng | | ription | Date | Verification | QC Inspector |
| oc/Data | | | | | | | | J | | ··· | | | |
| quip/Tooling | | | | | | | | | | | | | |
| perator | | | | | | | | | | | | | |
| laterial | | | | | | | | | | | | | |
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| upplier | | | <u> </u> | | | | | | | | | | |
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| napproved | | | | | | • | | | | | | | |
| | | | | • | • | F. | AUL | T CATE | GORY | | | | |
| Landi | ng (| Gear | | | • | General | | | | | | | |
| | | Bending | | | | Bend | | Grain | | | Ovalized | | Pressure/Forced |
| | | Centre No | ot Concer | ntric to | o/s | BOM/Route | | Hardwa | re | | Over/Under | tolerance | Temperature/Cure |
| | | Cracks | | | | Broken/Damaged | | Inspecti | on Incomplete | | Part Incorred | ct 🗀 | Weld |
| | | Crushed/0 | Crimped. | | | Burrs | | Instruct | ions Incomplete/l | Jnclear | Part Lost/Mi | ssing | Wrong Stock Pulled |
| | | Cuffs | | | | Contamination | | Mainte | nance | | Part Moved | | |
| | t | | | Countersink | | Mislabe | led | | Positioned V | Vrong | | | |
| | | Inspection | n Strip in | Tube | | Cut Too Short | | Misread | I | | Power Loss/ | Surge | Other |
| | | Ripples in | Bend | | Γ | Drill Holes | Offset | | | | | | |
| | | Torque W | aves in E | xtrusio | n $ abla$ | Drawing | Out of Calibration | | | | | | |
| | | Turning Se | equence | | | Finish | | Out of S | equence | | | | |
| | | Wave/Twi | ist in Tub | oe . | | Folio | Outside Dimensions | | | | | | |

| Work Ord September-26-1 | | | | *907 | 77* | | | | | | Page 10 |
|---|-------------|--|----------------------|------------------------------|--------------------------|--------|--------------|--------------|-----------------|------------------|-------------|
| Item ID: Revision ID: | D350-636- | 016 | | Accept | *N900 | 040 | 100 | ገ* | Setup Sta | rt *N | IS1* |
| Item Name: | Skidtube ST | D w/ Training Wearplates | s, RH | | | | | | Sto | PP *N | S2* |
| Start Date: Required Date: Reference: | 9/26/12 | Start Qty: 1.00 Req'd Qty: 1.00 | *1* *1* | | Cust Item I Customer: | D: | | | | • | |
| Approvals: | | lan: | - | Tooling: | | ate: | | | Run Sta | !/ | R1* |
| | QC: | | Date: | _ SPC (Y/N): | Da | ate: | | | | *N | R2* |
| Sequence ID/ Work Center II 270 | D | Operation Description | | Set Up/ Run Hours 0.00 | Tool ID | Tool # | Plan Code | Accep Qty | t Reject Qty | Reject Number | Insp. Stamp |
| *270* Packaging Packaging | | Packaging Memo Identify and Location: PPP rev: | | 0.00 PPPD350-636-016 | 907T | | | | | 13/10 | 1225 |
| 280 | | QC21- Final Inspection - | · Work Order Release | 0.00 | | | | | 12 | 100 | 24 dA |
| *280* QC Quality Control | | Memo | | 0.00 | | | | | | 1 / . | n G |

(2-10-22)

| NCR: | Yes | / No | | | | WORK ORDER NON-C | O | NFORM | MANCE / UPD | ATE | • | | |
|--|---------------------|------------|------------|------------|--------|----------------------------|-----|----------|-------------------------------|-------------------------------|--------------|--|---------------------------|
| | | | | | | | | | | | QA Closed: | Date: | |
| Work Ord | er: ˌ | | | | | DISPOSITION | | | | | EPARTMENT, | | · |
| Part I | No. | | | | | Rework Scrap Use-as-is | | ı | Skid-tube Machining noforming | Crosstube Small Fab Finishing | | Water Jet d. Eng. Coor. re/Packaging | Engineering Quality Other |
| NCR I | No. | | | | | Work Order Update |] | | Large Fab | Composite | Kec/stor | Supplier | Other |
| Root | | | | | Descri | ption of work order update | 1 | nitial | Acti | on | Sign & | | |
| Cause Date Step Qty or Non-conformance Chief Eng Description Date Verification | | | | | | | | | | Verification | QC Inspector | | |
| oc/Data | | | | | | | | | | | | | |
| quip/Tooling | | | | | | | | | | | | | |
| perator | | | ; | | | | 1 | | | | | | |
| laterial | | | | | | | | | | | | | |
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| rocess | | | | | | | | | | | | | |
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| napproved | | | | | | | | | | | | | |
| | | | | | | F | AUL | T CATE | GORY | | | | |
| Landi | ng G | iear | | | | General | | | | _ | | | |
| | | Bending | | | | Bend | | Grain | | | Ovalized | | Pressure/Forced |
| | | Centre No | t Concer | ntric to (| o/s | BOM/Route | | Hardwa | re | | Over/Under | tolerance | Temperature/Cure |
| | | Cracks | | | | Broken/Damaged | | Inspecti | on Incomplete | | Part Incorre | ct | Weld |
| | | | | | | | | Instruct | ions Incomplete/U | nclear | Part Lost/Mi | ssing | Wrong Stock Pulled |
| | Cuffs Contamination | | | | | | | Mainte | nance | | Part Moved | | _ |
| | | Heat Trea | t | | | Countersink | | Mislabe | led | | Positioned V | Vrong | |
| | | Inspection | Strip in | Tube | | Cut Too Short | | Misread | I | | Power Loss/ | Surge | Other |
| | | Ripples in | Bend | | | Drill Holes | | Offset | | <u></u> | | <u> </u> | |
| | | Torque W | aves in E | xtrusior | , | Drawing | | Out of 0 | Calibration | | | | |
| | | Turning Se | equence | | | Finish | | Out of S | Sequence | | | | |
| | | Wave/Twi | ist in Tub | e | | Folio | | Outside | Dimensions | | | | |

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID:

90777

Parent Item:

D350-636-016

Parent Item Name:

Skidtube STD w/ Training Wearplates, RH

Start Date: 9/26/12

Required Date: 10/19/12

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP rev:A 10.09.28 new issue DD verf:EC

IPP Rev:B 11.04.14 ecn11-553

| DD verf:EC | IPP Rev:C | 11.10.18 as per NCR 11-906 DD verf:E0 |
|------------|-----------|---------------------------------------|
| | | |

| | DD verf:EC | IPP | Rev:C | 11.10.18 as pe | er NCR 11-906 | DD verf:EC | | | | | | | |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------|--------------|---------------|------------------|------------|
| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
| AN3C34A BOLT | | Purchased | No | | | 230 | Each | 22.0000 | 1 | \$ | | | |
| > | | | | Location | | Loc Qty | <u>Lo</u> | c Code | | OI | | | P T |
| | | | | ST353 | | 22 | | | <u> </u> | | | | |
| | | | | | 5075 | 4 | | | | | | | |
| | | | | 117 | 7514 | 18 | | | | | | | |
| AN3C36A BOLT | | Purchased | No | | | 230 | Each | 163.0000 | 4 ' | 4 | 11/10 | 112 | |
| | | | | Location | | Loc Qty | <u>Lo</u> | c Code | | | | 1-1-C | |
| | | | | FG | | 24 | | | | | | | |
| | | | | 101 | 1261 | 4 | | | | | | | |
| | | | | 122 | 2204 | 20 | | | | | | | |
| | | | | ST353 | | 139 | | | | | | | |
| | | | | 116 | 5590 | 0 | | | | | | | |
| | | | | 119 | 9083 | 1 | | | | | | | |
| | | | | 119 | 9324 | 3 | | | | | | | |
| | | | | 121 | 1689 | 50 | | | | | | | |
| | | | | 122 | 2204 | 67 | | | | 2 | | | |
| | | | | 122 | 2491 | 14 | | | Υ΄ | 2 | | | |
| | | | | 159 | 924 | 4 | | | | -Av | | | |

| NCR: | Yes | / | No |
|------|-----|---|----|

| | | | | | | | | | | | | DQA: | Date: | |
|--------------------|----------|------------|------------|----------|------|-------------|-------------------------|----------|----------|------------------|-----------|---------------|---------------|--------------------|
| NCR: | ⁄es | / No | | | | 1 | WORK ORDER NON-O | 100 | VFOR | MANCE / UP | DATE | · | | · · · · , |
| | | | | | | | | | | | | QA Closed: | Date: | • |
| Nork Orde | ٥r. | | | | | Ī | DISPOSITION | | | | AGAINST D | EPARTMENT | PROCESS | · |
| voin oran | ٠ | | | | | | Rework | 1 | | Skid-tube | Crosstube | ٦ | Water Jet | Engineering |
| Part N | No. | | | | | | Scrap | | | Machining | Small Fab | Pro | d. Eng. Coor. | Quality |
| | • | | | | | | Use-as-is | | Thern | noforming | Finishing | Rec/Stor | e/Packaging | Other |
| NCR N | No. | | | | | | Work Order Update |] | | Large Fab | Composite | | Supplier | |
| Root | | | ļ | | Desc | riptio | on of work order update | | nitial | Ac | tion | Sign & | | |
| Cause | | Date | Step | Qty | | or N | Non-conformance | Ch | ief Eng | Desc | ription | Date | Verification | QC Inspector |
| oc/Data | | | | | | | | | | | | | | |
| uip/Tooling | Ш | | | | | | | | - | | | | | |
| perator | | : | | | | | | | | | | | | |
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| rocess | \vdash | | | | | | | | | | | | | |
| upplier raining | | | | | | | | | | | | | | |
| napproved | | | | | | | | | | | | | | |
| паррточеа | ll | | | L | | - | F | L AUI | T CATE | L GORY | | <u> </u> | | |
| Landi | ng G | iear | | | | | General | | | | | | | |
| - | | Bending | | | Γ | Ве | end | Г | Grain | | | Ovalized | | Pressure/Forced |
| | | Centre No | ot Concer | ntric to | o/s | ВС | OM/Route | | Hardwa | re | | Over/Under | tolerance | Temperature/Cure |
| | | Cracks | | | Γ | Br | oken/Damaged | | Inspecti | on Incomplete | | Part Incorred | ct – | Weld |
| | | Crushed/0 | Crimped. | | | Bu | ırrs | Г | Instruct | ions Incomplete/ | Unclear | Part Lost/Mi | ssing | Wrong Stock Pulled |
| | | Cuffs | | | | \Box_{Co} | ontamination | | Mainte | nance | | Part Moved | - L | |
| | | Heat Trea | t | | Γ | \Box cc | ountersink | | Mislabe | led | | Positioned V | Vrong | |
| | | Inspection | n Strip in | Tube | | Cu | ıt Too Short | | Misread | i | | Power Loss/ | | Other |
| | | Ripples in | Bend | | Γ | Dr | rill Holes | | Offset | | _ | · | - ! | |
| | | Torque W | aves in E | xtrusio | , [| Dr | rawing | | Out of 0 | Calibration | | | | |
| | | Turning Se | equence | | Γ | Fir | nish | | Out of S | Sequence | | - | | |
| | | Wave/Tw | ist in Tub | e | Γ | Fo | olio | | Outside | Dimensions | | | | |

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

September-26-12 3:26:19 PM

| Work Order ID: Parent Item: | 90777 D350-636-016 | | | | | | | | 64- 41 | 0/06/11 | | D 1 1D 1 16 | 2/10/12 |
|-----------------------------------|-----------------------|----------------------|----|----------|----------|---------|------|-----|----------|------------------|----------|-------------------|----------------|
| Parent Item Name: | | Training Wearplates, | DП | | | | | | | Date: 9/26/12 | 2 | Required Date: 10 | |
| | Skidtube 31D W/ | | | | | | | | | Qty: 1.00 | | Required Qty: 1. | 00 A |
| AN3C37A BOLT | | Purchased | No | | | 230 | Each | 1 | 147.0000 | 1 | \$ | <u> </u> | |
| > | | | | Locatio | <u>n</u> | Loc Qty | | Loc | c Code | | • | | |
| | | | | ST324 | | 50 | | | | | | | |
| | | | | | 122204 | 50 | | | | / | <u>X</u> | | |
| | | | | ST353 | | 80 | | | | | | | , |
| | | | | | 122491 | 50 | | | | | | | |
| | | | | | 122843 | 30 | | | | | | | |
| | | | | ST354 | | 17 | | | | | | | |
| | | | | | 116874 | 11 | | | | | | | |
| | | | | | 117010 | 2 | | | | ~ | | | |
| | | | | | 120422 | 3 | | | | | | | |
| /a | | | | | 121584 | 1 | | | | | | | ~ A |
| AN3C42A BOLT | | Purchased | No | | | 230 | Each | 1 | 87.0000 | 1 | St |). | |
| | | | | Location | <u>n</u> | Loc Qty | | Loc | : Code | | 7 | | |
| | | | | FG | | 5 | | | | | | | |
| | | | | | 121103 | 5 | | | | | | | |
| | | | | ST354 | | 82 | | | | | | | |
| | | | | | 106176 | 1 | | | | | | | |
| | | | | | 120464 | 1 | | | | | | | |
| | | | | | 122241 | 50 | | | | | <u>/</u> | | |
| | | | | | 122843 | 30 | | | | | | | |
| D3488-042 Blade Fitting Assembly, | RH | Manufactured | No | | | 230 | Each | 1 | 15.0000 | 1 | 1 | 11/10/12 | |
| | | | | Location | <u>n</u> | Loc Qty | | Loc | Code | | | | |
| | | | | FP | | -9 | | | | | | | |
| | | | | | 83417 | 3 | | | | | | | |
| | | | | FP002 | | 24 | | | | | | | |
| | | | | | 85734 | 3 | | | | | | | |
| | | | | | 86054 | 9 | | | | X | 1 | | |

| NCR: | Yes | / | No |
|------|-----|---|----|
| | | | |

| | | | | | | | | | | | DQA: | Date: | |
|------------------------------------|-------|------------|------------|----------|-----|--|-----|----------|--|---|--------------|---|---------------------------|
| NCR: | Yes | / No | | | | WORK ORDER NON-O | COI | NFOR | MANCE / UPI | DATE | • | | \$. 18 E |
| | | | | | | | | | | | QA Closed: | Date: | |
| Vork Ord | er: | | | | | DISPOSITION | | | | AGAINST DE | PARTMENT | /PROCESS | • |
| Part NCR | No. | ••• | | | | Rework Scrap Use-as-is Work Order Update | | Therm | Skid-tube Machining noforming Large Fab | Crosstube Small Fab Finishing Composite | 4 | Water Jet d. Eng. Coor. re/Packaging Supplier | Engineering Quality Other |
| Root | | | | | | iption of work order update | ł | Initial | li . | tion | Sign & | | |
| Cause | | Date | Step | Qty | | or Non-conformance | Ch | nief Eng | Descr | ription | Date | Verification | QC Inspector |
| oc/Data quip/Tooling perator | | | | | | | | | | | | | |
| laterial etup | | | | | | | | | | | | | |
| ther - | | | | | | | | ļ | | | | | |
| rocess | | | | | | | | 1 | | | | | |
| upplier | | | | <u> </u> | | | | ļ | | | | | |
| raining | | | ŀ | | | | 1 | ļ | | | | | |
| napproved | | | | | | | | | | | | | |
| | | | | | | F. | AUI | LT CATE | GORY | | | | |
| Land | ing (| 3ear | | | | General | | | | | _ | | |
| | | Bending | | | | Bend | | Grain | | | Ovalized | | Pressure/Forced |
| | | Centre No | ot Concer | ntric to | o/s | BOM/Route | | Hardwa | ire | | Over/Under | tolerance | Temperature/Cure |
| | | Cracks | | | | Broken/Damaged | | Inspecti | ion Incomplete | | Part Incorre | ct | Weld |
| | | Crushed/C | Crimped. | | | Burrs | | Instruct | tions Incomplete/l | Unclear | Part Lost/Mi | issing | Wrong Stock Pulled |
| | | Cuffs | | | | Contamination | | Mainte | enance | | Part Moved | | |
| | | Heat Treat | t | | | Countersink | | Mislabe | eled | | Positioned V | Vrong | |
| | | Inspection | n Strip in | Tube | | Cut Too Short | | Misread | t | | Power Loss/ | Surge | Other |
| | | Ripples in | Bend | | | Drill Holes | | Offset | | | - | | |
| | | Torque W | aves in E | xtrusio | n [| Drawing | | Out of (| Calibration | | | | |
| | | Turning Se | equence | | | Finish | | Out of 5 | Sequence | | | | |
| | | Wave/Twi | ist in Tub | e | Γ | Folio | | Outside | Dimensions | | | | |

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Picklist Print
September-26-12 3:26:19 PM

| Work Order ID: | 90777 | | | ··· · · · | | | | | | | |
|------------------------------|--------------------|-----------------------|----|-----------------|----------|---------|------|----------|----------------|----------|-------------------------|
| Parent Item: | D350-636-016 | | | | | | | Sta | rt Date: 9/26/ | 12 | Required Date: 10/19/12 |
| Parent Item Name: | Skidtube STD w/ Tr | raining Wearplates, I | RH | | | | | | rt Qty: 1.00 | | Required Qty: 1.00 |
| D3490-1 Cross Bolt Spacer | | Manufactured | No | | | 160 | Each | 113.0000 | 4 | 4 | BE12/10/03 |
| | | | | <u>Location</u> | <u>1</u> | Loc Qty | | Loc Code | | | 1 / |
| | | | | LG | | 104 | | | | | |
| | | | | | 81976 | 2 | | | | | |
| | | | | | 86979 | 40 | | | | | |
| • | | | | | 88617 | 62 | | | | 4 | |
| | | | | LG001 | | 9 | | | | | |
| • | | | | | 62450 | 2 | | | | | |
| | | | | | 74875 | 4 | | | | | |
| D4400 A | | | | | 77042 | 3 | | | | | |
| D3490-3 | | Manufactured | No | | | 160 | Each | 50.0000 | 4 | 4 | 00 / / 0 |
| Cross Bolt Spacer | | | | | | | | | | · | BB12 /10/03 |
| | | | | Location | 1 | Loc Oty | | Loc Code | | | ' / : |
| | | | | LG001 | | 50 | | | | | , |
| | | | | | 85420 | 10 | | | | | |
| | | | | | 86980 | 40 | | | | _4 | |
| D3492-1 | | Manufactured | No | | | 230 | Each | 109.0000 | 8 | M/8 | 1 1 - |
| Plug | | | | | | | | | es unema | <u> </u> | 11/10/17 |
| | | | | Location | ! | Loc Qty | | Loc Code | | | |
| | | | | FP002 | | 102 | | | | | |
| | | | | | 69531 | 8 | | | | | |
| | | | | | 74444 | 2 | | | | | |
| | | | | | 76235 | 4 | | | | | |
| | | | | | 88541 | 8 | | | | | |
| | | | | | 89363 | 40 | | | | | |
| | | | | | 90334 | 40 | | | | у б | - |
| | | | | FP-A | | 7 | | | - | | |
| | | | | | 83098 | 7 | | | | | |
| | | | | | | | | | | | |

| | | | | | | | | | | | | DQA: | D: | ate: | |
|---------------|------|-----------|-----------|----------|--------|----------------------------|-----|----------|------------------------|-----------|----|--------------|---------------------------|----------|---------------------------------------|
| NCR: | Yes | / No | | | | WORK ORDER NON-O | 100 | NFORM | MANCE / UP | DATE | | · | | • | • • |
| | | | | | | | | | | | | QA Closed: | Da | ate: | , |
| Morle Ond | | | <u>.</u> | | | DISPOSITION | | | | AGAINST D |)E | PARTMENT, | PROCESS | | |
| Work Ord | er: | <u> </u> | | | | Dawa #4 | 1 | | C1::4 Ab.a | Crosstube | — | 1 | Water Jei | . [| · · · · · · · · · · · · · · · · · · · |
| Dart 1 | No. | | | | | Rework | - | • | Skid-tube Machining | Small Fab | _ | Dro | water jei d. Eng. Coor | | Engineering Quality |
| Part f | VO. | | | | | Scrap Use-as-is | - | 1 | noforming | Finishing | _ | 4 | e/Packaging | - | Other |
| NCR I | N۵ | | | | | Work Order Update | 1 | | Large Fab | Composite | | Kec/3toi | Supplie | \vdash | Other |
| Neitt | 10. | | | | | Work Order opdate | J | | raige rab | composite | _ | j | Juppite | Ш | |
| Root | | | | | Descri | ption of work order update | | Initial | Ac | tion | | Sign & | | | |
| Cause | | Date | Step | Qty | | or Non-conformance | Cr | nief Eng | Desc | ription | | Date | Verification | on | QC Inspector |
| Doc/Data | | _ | | | | | | | | | | | | - | |
| Equip/Tooling | | | | | | | | | | | | | | | |
| Operator | | | | | | | 1 | | | | | | | | |
| Material | | | | | | | | | | | | | | l | |
| Setup | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | |
| Process | | | | | | | | | | | | | | i | |
| Supplier | | | | | | | | | | | | | | | |
| Training | | | ľ | | | | | | | | | l : | | | |
| Unapproved | | | | | | | | | | | | | | | |
| | | : | | | | <u> </u> | AUI | LT CATE | GORY | | | | | | |
| Landi | ng (| Gear | | | | General | | - | | - | | - | | _ | . |
| | | Bending | | | | Bend | L | Grain | | | | Ovalized | | | Pressure/Forced |
| | L | Centre No | ot Concer | ntric to | o/s | BOM/Route | | Hardwa | re | | | Over/Under | tolerance | | Temperature/Cure |
| | _ | Cracks | | | | Broken/Damaged | L | Inspecti | on Incomplete | | | Part Incorre | ct | | Weld |
| | L | Crushed/ | Crimped. | | | Burrs . | | Instruct | ions Incomplete/ | 'Unclear | | Part Lost/Mi | ssing | | Wrong Stock Pulled |
| ĺ | 1 | Cuffs | | | | Contamination | | Mainte | nance | | | Part Moved | | | |

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Part Moved

Positioned Wrong

Power Loss/Surge

Other

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

September-26-12 3:26:19 PM

| Work Order ID: Parent Item: Parent Item Name: | 90777 D350-636-016 Skidtube STD w/ Training Wearplates, R | Н | | | | | eate: 9/26/12 Qty: 1.00 | Required Date: 10/19/12 Required Qty: 1.00 |
|---|---|-----|-----------------|----------|----------|------------------|----------------------------|--|
| D3492-3 | Manufactured | No | | 230 E | ach | 195.0000 | | 8 1 1 |
| Plug | | | | | | | | 11/10/17 |
| | | | Location | Loc Qty | <u>I</u> | oc Code | | |
| | | | FP001 | 40 | | | | |
| | | | 90322 | 40 | | | | |
| | | | FP002 | 40 | | | | |
| | • | | 89291 | 40 | | | | |
| | | | FP-A | 115 | | | | |
| | | | 81967 | 5 | | | | |
| | | | 83099 | 3 | | | √ 6 | |
| | | | 83529 | 46 | | | | |
| | | | 85461 | 9 | | | | |
| 3873-1 | | | 86865 | 52 | | | | |
| | Manufactured | No | | 230 E | ach | 69.0000 | ⁷ 40 | 7 |
| ushing | | | | | | | | |
| | | | Location | Loc Qty | <u>1</u> | oc Code | | |
| | | | ST057 | 6 | . ^ | C | | |
| | | | 79561 | 6 | 15 | 59400 | x 7 | |
| • | | | ST067 | 63 | | | | |
| | | | 64760 | 1 | | | | |
| | | | 68247 | 4 | | | | |
| | | | 73829 | 19 | | | | |
| | | | 73830 | 2 | | | | |
| , | | | 76791 79560 | 17 20 | | | | |
| 4154-041 | Name Control | No | 79300 | | ach | 0.0000 | | |
| Vearplate Assembly | Manufactured | 110 | | 230 E | | 0.0000 390298 | (x_1) | llululu |

| | | | | | | | | | | | DQA: | Date: | * |
|--|------|---------------------|------------|-----------|-------------------|------------------------------|----------|--------------|---|-------------|-----------------------------|---|---------------------------|
| NCR: | Yes | / No | | | | WORK ORDER NON- | 100 | NFORM | MANCE / UPDATE | | • | | • • • |
| | | | | | | | | | | | QA Closed: | Date: | |
| Nork Ord | er: | | | | | DISPOSITION | | | AGAIN | NST DE | PARTMENT | PROCESS | , |
| Part 1 | | | | | | Rework Scrap Use-as-is | | ı | Skid-tube Crosstu Machining Small (noforming Finish | Fab | -1 | Water Jet d. Eng. Coor. | Engineering Quality Other |
| NCR I | No. | | | | · | Work Order Update |] | | Large Fab Compos | |] | Supplier | |
| Root | | | | | Descr | iption of work order update | Ti | nitial | Action | | Sign & | · • • • · · · · · · · · · · · · · · · · | |
| Cause | | Date | Step | Qty | | or Non-conformance | Ch | ief Eng | Description | | Date | Verification | QC Inspector |
| oc/Data quip/Tooling perator laterial etup ther rocess upplier raining napproved | | | | | | | | | | | | | |
| | | | | | | F | AUL | T CATE | GORY | | | | |
| Landi | ng (| ear | | | | General | | | | | | | |
| | _ | Bending | | | , | Bend | | Grain | | F | Ovalized | | Pressure/Forced |
| | | Centre No Cracks | it Concer | יטו אוווו | ^{0/3} - | BOM/Route Broken/Damaged | \vdash | Hardwa | re on Incomplete | - | Over/Under Part Incorred | | Temperature/Cure Weld |
| | - | Crushed/C | rimped | | - | Burrs | - | 1 | ions Incomplete/Unclear | \vdash | Part Lost/Mi | - | Wrong Stock Pulled |
| | _ | Cuffs | ormpeu. | | | Contamination | \vdash | Mainte | · | <u> </u> | Part Moved | 33111g | Twi oilg Stock Fulled |
| | | Heat Treat | t | | | Countersink | | Mislabe | | _ | Positioned V | Vrong | |
| | | Inspection | Strip in | Tube | | Cut Too Short | | Misread | | | Power Loss/ | | Other |
| | | Ripples in | | | | Drill Holes | | Offset | | <u> </u> | | ~ <u>L</u> | |
| | | Torque W | aves in È | xtrusio | n | Drawing | | Out of C | Calibration | | | | |
| | | Turning Se | equence | | | Finish | | Out of S | equence | | - | - | |
| | | Wave/Twi | ist in Tub | e | | Folio | | Outside | Dimensions | | | | |

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September-26-12 3:26:20 PM

| Work Order ID: | 90777 | | | | | | | | | | |
|---------------------------|----------------------|--------------------|----|-----------------|-------|---------|------|-------------|------------------|-----|-------------------------|
| Parent Item: | D350-636-016 | | | | | | | Start I | Date: 9/26/12 | | Required Date: 10/19/12 |
| Parent Item Name: | Skidtube STD w/ Trai | ning Wearplates, F | RH | | | | | Start | Qty: 1.00 | | Required Qty: 1.00 |
| D4170-1 Bushing | | Manufactured | No | | | 230 | Each | 39.0000 | 4 | 4 | BEIZFIOLOZ |
| | | | | Location | | Loc Qty | | Loc Code | | | , , |
| | | | | LG | | 30 | 1 | | | 1 | |
| | | | | 82 | 2222 | 30 | 1 | | | 4 | |
| | | | | LG001 | | 9 | ı | | | | |
| | | | | | 1844 | 5 | | | | | |
| | | | | 82 | 2043 | 4 | | | | | |
| D4171-1 Bushing | | Manufactured | No | | | 230 | Each | 3.0000 | 1 M | 1 | 110/12 |
| | | | | Location | | Loc Qty | | Loc Code | | | |
| | | | | ST104 | | 3 | | | | | |
| | | | | | 2385 | 3 | | | <u> </u> | | \ |
| MS21043-3 Nut | | Purchased | No | _ | | 230 | Each | 744.0000 | 5)4 | X 4 | olar |
| 7 | \nearrow | | | Location | | Loc Qty | | Loc Code | | • | |
| | | | | FĞ | | 72 | | | | | |
| | | | , | | 03691 | 72 | | | · · · · · | | |
| | | | | ST301 | | 172 | | | · | | |
| | | | | | 18077 | 2 | | | | | |
| | | | | 1 | 18614 | 7 | | | | | |
| | | | | 11 | 18686 | 30 | | | | | |
| | | | | | 19758 | 20 | | | | | • |
| | | | | | 21255 | 20 | | | | | |
| | | | | | 21708 | 93 | | | | | |
| | | | | ST315 | | 500 | | | | 4 | |
| | | | | 12 | 22993 | 500 | | | | | |

| | | | | | | | | | | | | DQA: | Date | | | | |
|--|------|--|---|----------|---------------------------------------|--|---|--------------------|---|-----------------|---------------------------------------|--|---|---|--|--|--|
| NCR: | Yes | / No | | | | | WORK ORDER NON-O | 100 | VFORM | MANCE / UPI | DATE | • | | 4 1 4 | | | |
| | | | | | | | | | QA Closed: Date: | | | | | | | | |
| Work Ord | er: | | | | | | DISPOSITION | | AGAINST DEPARTMENT/PROCESS | | | | | | | | |
| Part NCR | | | | | | | Rework Scrap Use-as-is Work Order Update | | Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite | | | ₹ | Water Jet d. Eng. Coor. re/Packaging Supplier | Engineering Quality Other | | | |
| Root Cause | | | | | - | otion of work order update or Non-conformance | 1 | nitial iief Eng | | tion ription | Sign & Date | Verification | QC Inspecto |)r | | | |
| oc/Data quip/Tooling perator laterial etup ther rocess upplier raining napproved | | | | | | | | | | | | | | | | | |
| | | | • | <u> </u> | · · · · · · · · · · · · · · · · · · · | | F | ΑUL | T CATE | GORY | | - ! | | | | | |
| Land | ng (| Gear | | | | | General | | _ | | | | | | | | |
| | | Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion | | | | | Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing | | Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Offset Out of Calibration | | | Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/ | ct ssing Vrong | Pressure/Forced Temperature/Cu Weld Wrong Stock Pul Other | | | |
| | Г | Turning S | | | | | Finish | i | eauence | | · · · · · · · · · · · · · · · · · · · | | | | | | |

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

September-26-12 3:26:20 PM

| Work Order ID: | 90777 | | | | | | | | |
|-------------------------|--------------------|----------------------|----|-----------------|---------|------|------------|-------------|-------------------------|
| Parent Item: | D350-636-016 | | | | | | Start Da | te: 9/26/12 | Required Date: 10/19/12 |
| Parent Item Name: | Skidtube STD w/ Tr | aining Wearplates, R | Н | | | | Start Q | ty: 1.00 | Required Qty: 1.00 |
| NAS1149C0363R Washer | c) | Purchased | No | | 230 | Each | 4,736.0000 | ° M > | (7 Valiola |
| | | | | Location | Loc Oty | | Loc Code | | • |
| | \times | | | 297 | 2000 |) | | | , |
| | | | | 122441 | 2000 |) | | | |
| | | | | ST297 | 2736 | ; | | | |
| | | | | 114742 | | | | _ X 7 | |
| | | | | 122063 | 200 | | | | / |
| NAS1149D0863J WASHER | | Purchased | No | | 250 | Each | 159.0000 | 2 Hl 3 | 110/17 |
| | | | | Location | Loc Qty | | Loc Code | | |
| | | | | ST298 | 159 | • | | | |
| | | | | 118078 | 28 | ; | | VZ | |
| | | | | 119307 | 1 | | | | |
| | | | | 120308 | 30 | | | | |
| N C | | | | 121556 | 100 | | | | |
| NAS1515H3L WASHER | | Purchased | No | | 230 | Each | 223.0000 | 4 HU " | ulioliz |
| | | | | Location | Loc Qty | | Loc Code | | |
| | | | | FG | 40 | ı | | | |
| | | | | 102472 | 40 | | | | |
| | | | | ST277 | 183 | | | | |
| | | | | 118686 | 3 | | | | |
| | | | | 120360 | 11 | | | | |
| | | | | 121556 | 45 | | | | |
| | | | | 122151 | 124 | | | <u> </u> | |

| NCR: | Yes | 1 | No |
|--------|-----|---|------|
| IVILIN | 167 | , | 14(1 |

| | | | | | | | | | | | | DQA: | Date: | • | | | |
|--|-------------------------------------|--|-------------------------------|------------|-------------|---|---|-----|---|--|-----------------|--|-------------------------------------|--|--|--|--|
| NCR: | /es | / No | | | | | WORK ORDER NON-C | 100 | VFORM | MANCE / UPI | DATE | • | | • • • • | | | |
| | | | | | | | | | | | | QA Closed: | Date: | | | | |
| Vork Orde | er: | | | | | | DISPOSITION | | | AGAINST DEPARTMENT/PROCESS | | | | | | | |
| Part N | - . : ۰ | | | | | | Rework Scrap Use-as-is | | Skid-tube Crosstube Machining Small Fab Thermoforming Finishing | | | | Water Jet d. Eng. Coor. e/Packaging | Engineering Quality Other | | | |
| NCR N | ۱o. ₋ | | | | | | Work Order Update |] | | Large Fab | Composite | | Supplier | J LJ | | | |
| 1 1 1 | | | | | | | tion of work order update | 1 | Initial nief Eng | | tion ription | Sign & Date | Verification | QC Inspector | | | |
| oc/Data quip/Tooling perator laterial etup ther rocess upplier raining | | ; | e Step Qty or Non-conformance | | | | | | | 0.03 | | | vermeution | Qe inspector | | | |
| | | | | | | | F | AUL | T CATE | GORY | | | | | | | |
| Landi | | Bending | at Concer | otric to (|)/s | ⊣ | General Bend BOM/Route | | Grain | | | Ovalized Over/Under | talarana | Pressure/Forced | | | |
| | | Centre Not Concentric to O/S Cracks Crushed/Crimped. | | | | | BOM/Route Broken/Damaged Burrs | | 1 | re on Incomplete ions Incomplete/I | Jnclear | Part Incorred Part Lost/Mi | at | Temperature/Cure Weld Wrong Stock Pulled | | | |
| | | Cuffs Heat Treat Inspection Strip in Tube | | | | | Contamination Countersink Cut Too Short | | Maintenance Mislabeled Misread | | | Part Moved Positioned Wrong Power Loss/Surge | | Other | | | |
| | | Ripples in Bend Torque Waves in Extrusion | | | | | Drill Holes Drawing | | Offset Out of 0 | Calibration | _ | | | | | | |
| | Turning Sequence Wave/Twist in Tube | | | | | | Finish Folio | | 1 | equence Dimensions | | | | | | | |

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

September-26-12 3:26:20 PM

| Work Order ID: | 90777 | | | | | | | |
|------------------------------|--------------------------------------|----|---------------|---------|------|----------|---------------------|-------------------------|
| Parent Item: | D350-636-016 | | | | | Start Da | ate: 9/26/12 | Required Date: 10/19/12 |
| Parent Item Name: | Skidtube STD w/ Training Wearplates, | RH | | | | Start Q | ty: 1.00 | Required Qty: 1.00 |
| NAS1611-010 O-RING | Purchased | No | | 230 | Each | 152.0000 | 8 11 8 | 12/10/17 |
| | | | Location | Loc Qty | | Loc Code | | |
| | | | FP001 | 152 | | | | |
| | | | 110915 | 14 | | | | |
| | | | 117460 | 8 | | | | |
| | | | 118077 | 1 | | | | |
| | | | 118612 | 3 | | | | |
| | | | 119438 | 47 | | | - | |
| | | | 121259 | 2 | | | | |
| | | | 121584 | 2 | | | | |
| | | | 121723 | 7 | | | - | |
| | | | <u>122151</u> | 68 | | | - \& | |
| NAS1611-013 O-RING | Purchased | No | | 230 | Each | 220.0000 | 8 <u>M</u> 8 | ulioliz |
| | | | Location | Loc Qty | | Loc Code | | |
| | | | FP001 | 220 | | | | |
| | | | 116582 | 5 | | | | |
| | | | 117291 | 2 | | | | |
| | | | 117887 | 53 | | | | |
| | | | 119623 | 36 | | | | |
| | | | 121825 | 18 | | | | |
| | | | 121826 | 6 | | | | |
| | | | 122993 | 100 | | | V & | |
| D2744 Cap | Manufactured | No | | 110 | Each | 36.0000 | 1 1 | BE 12/10/02 |
| Сар | | | | | | | | |
| | | | Location | Loc Oty | | Loc Code | | • |
| | | | LG002 | 36 | | | | |
| | | | 62715 | 1 | | | | |
| | | | 85506 | 35 | | | | |
| | | | | | | | | |

| NCR: | Yes | / | No |
|------|-----|---|----|
| NCR: | Yes | / | No |

| NCR: Y | Yes / N | lo | | | | WORK ORDER NON-C | CON | IFORI | MANCE / UP | | DQA: QA Closed: | | |
|---------------------------|-------------|-------------|----------|-----------|----------|--|----------|----------|--------------------|---|--------------------|--|---------------------------|
| Work Orde | ar. | | | | , | DISPOSITION | | ı | | AGAINST DE | PARTMENT/ | /PROCESS | 1 |
| Part N NCR N | No | | | | | Rework Skid-tube Machining Use-as-is Thermoforming Large Fab | | | Machining | Crosstube Small Fab Finishing Composite | ⊣ | Water Jet od. Eng. Coor. re/Packaging Supplier | Engineering Quality Other |
| Root | | | | | Descri | iption of work order update | Ir | nitial | Act | tion | Sign & | | 1 |
| Cause | Dat | .e St | tep | Qty | | or Non-conformance | Chi | ief Eng | Descr | cription | Date | Verification | QC Inspector |
| Doc/Data Equip/Tooling | \exists | | | | | | | | | | | | |
| Operator | | | | ! | | | | J | 1 | | ! | 1 | 1 |
| Material | | | ļ | | | | | ļ | | |] 1 | 1 | 1 |
| Setup | | | | İ | | | |). | | | ' | 1 | 1 |
| Other | | | | | | | |) | 1 | | , | 1 | 1 |
| Process | Ц | | | | | | | ļ | | | 1 | 1 | 1 |
| Supplier | <u> </u> | | | | | | | 1 | 1 | | ' | 1 | 1 |
| Training | \vdash | | | | | | | J | 1 | | ' | 1 | 1 |
| Jnapproved | | L_ | | | | | | TCATE | | | 1 | <u> </u> | <u> </u> |
| Landi | ng Gear | | | | | General FA | AULI | T CATE | JURY | | | | |
| Landin | Bendi | ina | | | Г | Bend | | Grain | | | Ovalized | | Pressure/Forced |
| , | | e Not Cor | ncent | tric to C | 7/S | BOM/Route | \vdash | Hardwai | are | H | Over/Under | — | Temperature/Cure |
| ţ | Cracks | | | 10 | / | Broken/Damaged | \vdash | 1 | tion Incomplete | | Part Incorrec | ⊢ | Weld |
| t | <u> </u> | ed/Crimp | ped. | | | Burrs | | 1 | tions Incomplete/L | Unclear | Part Lost/Mi | ⊢ | Wrong Stock Pulled |
| ŗ | Cuffs | • | - | | <u> </u> | Contamination | | Mainte | | | Part Moved | - — | |
| ſ | Heat 1 | ſreat | | | | Countersink | \vdash | Mislabel | | | Positioned W | √rong | |
| Γ | Inspe | ction Strip | ip in T | ube | | Cut Too Short | \vdash | Misread | | | Power Loss/S | | Other |
| | _ | es in Bend | | 8 | | Drill Holes | | Offset | | | | | |
| J | Torqu | ie Waves | s in Ext | trusion | · [| Drawing | | Out of C | Calibration | | | | |
| | Turnir | ng Sequer | ≥nce | | | Finish | | Out of S | Sequence | | | | |
| J | Wave | /Twist in | ı Tube | و | | Folio | | Outside | e Dimensions | | | | |

Picklist Print
September-26-12 3:26:20 PM

| Work Order ID: | 90777 | | | | | | | | |
|-----------------------------|---|-----|--------|---------|------|----------|------------------|-------------|-------------------------|
| Parent Item: | D350-636-016 | | | | | Start I | Date: 9/26/12 | | Required Date: 10/19/12 |
| Parent Item Name: | Skidtube STD w/ Training Wearplates, RI | Н | | | | | Qty: 1.00 | | Required Qty: 1.00 |
| D2600-3-BENT Extrusion Bent | Manufactured | No | | 110 | Each | 27.0000 | 1 | 1 | BE12-10-0 |
| | | Loc | cation | Loc Qty | | Loc Code | | | |
| | | LG | | 27 | | | | | |
| | | | 66875 | 7 | | | | | |
| | | | 73253 | 1 | | | | | |
| | | | 75021 | 1 | | | | | |
| | | | 75022 | 1 | | | | | |
| | | | 75023 | ì | | | | | |
| | | | 81330 | 4 | | | - | | |
| | | | 83305 | 1 | | | | | |
| | | | 88712 | 5 | | | | | · |
| | | | 90251 | 6 | | | | | |
| D2743 | Manufactured | No | | 160 | Each | 267.0000 | 8 | 8 | |
| Crossbolt Spacer | | | | | | | | | BE1240-03 |
| | | Loc | cation | Loc Oty | | Loc Code | | | |
| | | LG | | 193 | | | | | |
| | | | 81965 | 23 | | | | | |
| | | | 83262 | 2 | | | | | |
| | | | 85459 | 46 | | | | 3 | |
| | | | 88504 | 122 | | | | | |
| | | LG(| 001 | 74 | | | | | |
| | | | 67766 | 4 | | | | | |
| | | | 68251 | 3 | | | | | |
| | | | 73403 | 64 | | | - | | , |
| | | | 74445 | 1 | | | - | | |
| | | | 79517 | 2 | | | | | |
| | | | | | | | - | | |

| | | | | | | | | | | DQA: | Date: | 4 | | | |
|--------------------------|---------------------------|------------|------------|----------|-------------|------------------------------|----------|----------------------------|--|--------------|---------------|--------------------|--|--|--|
| NCR: | /es | / No | | | | WORK ORDER NON-C | O | NFORM | MANCE / UPDATE | | | , | | | |
| | | | | | | | | | · | QA Closed: | Date: | | | | |
| Work Orde | or. | | | | | DISPOSITION | | AGAINST DEPARTMENT/PROCESS | | | | | | | |
| WOIK OIG | ٠ | | | | | Rework | 1 | | Skid-tube Crosstube | | Water Jet | Engineering | | | |
| Part N | ۱o. | | | | | Scrap | | | Machining Small Fab | Pro | d. Eng. Coor. | Quality | | | |
| | • | | | | | Use-as-is | | | noforming Finishing | | re/Packaging | Other | | | |
| NCR 1 | ۱o. | | | | | Work Order Update |] | | Large Fab Composite | | Supplier | | | | |
| | | | | 1 | | 1 | | | | 1 | <u>,</u> | | | | |
| Root | | 0.4. | Curr | ٥. | 1 | ription of work order update | 1 | nitial | Action | Sign & | | | | | |
| Cause | Date Step Qty | | | | | or Non-conformance | Ch | ief Eng | Description | Date | Verification | QC Inspector | | | |
| oc/Data | - | | | | | | | | | | | | | | |
| quip/Tooling Operator | - | | | | | | | | | | | | | | |
| Material | | | | | | | | | | | | | | | |
| etup | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | |
| rocess | | | | | | | | | | | | | | | |
| upplier | | | | | | | | | | | | | | | |
| raining | | • | | | | | | | | | | | | | |
| Inapproved | | | | | | | | | | | | | | | |
| | | | | | | F | AUL | T CATE | GORY | | | | | | |
| Landi | | 1 | | | | General | | - | , | | | _ | | | |
| | | Bending | | | <u></u> | Bend | | Grain | | Ovalized | | Pressure/Forced | | | |
| | | Centre No | t Concer | ntric to | o/s | BOM/Route | | Hardwa | | Over/Unde | — | Temperature/Cure | | | |
| | | Cracks | | | <u> </u> | Broken/Damaged | | 1 | ion Incomplete | Part Incorre | | Weld | | | |
| | | Crushed/0 | Crimped. | | <u> </u> | Burrs | <u></u> | 1 | ions Incomplete/Unclear | Part Lost/M | L | Wrong Stock Pulled | | | |
| | Щ | Cuffs | | | | Contamination | | Mainte | | Part Moved | | | | | |
| | | Heat Trea | - | | | Countersink | _ | Mislabe | į daras ir d | Positioned | | ן . | | | |
| | Щ | Inspection | • | Tube | _ | Cut Too Short | <u></u> | Misread | i l | Power Loss | /Surge | Other | | | |
| | | Ripples in | | | | Drill Holes | <u>_</u> | Offset | | | | | | | |
| | Torque Waves in Extrusion | | | | | Drawing | <u></u> | 1 | Calibration | | | | | | |
| | | Turning Se | • | | _ | Finish | L | 1 | Sequence | | | | | | |
| | | Wave/Tw | ist in Tub | oe - | | Folio | | Outside | Dimensions | | | | | | |

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Picklist Print
September-26-12 3:26:21 PM

| Work Order ID: | 90777 | | | | | | |
|----------------------------|--|-------|-------------|---------|-----------------|---------------|-------------------------|
| Parent Item: | D350-636-016 | | | | Start D | Pate: 9/26/12 | Required Date: 10/19/12 |
| Parent Item Name: | Skidtube STD w/ Training Wearplates, R | Н | | | | Qty: 1.00 | Required Qty: 1.00 |
| D2739 350 I Beam | Manufactured | No | | 160 I | Each 8.0000 | 1 1 | B 12/10/02 |
| | | Loca | <u>tion</u> | Loc Qty | Loc Code | | ' (|
| | | LG | | 8 | | | |
| | | | 72155 | 1 | | | |
| | | | 81508 | 1 | | | |
| | | | 85487 | 1 | | | |
| | | | 86615 | 1 | | - | |
| | | | 90509 | 1 3 | | | |
| ALS4-1032-225 Insert | Purchased | No | | 230 E | Each 2,739.0000 | 4 41 4 | aliola |
| | | Loca | <u>tion</u> | Loc Qty | Loc Code | • | |
| | | FP-B | | 1300 | | | |
| | | | 122290 | 1300 | | _ Xu | - |
| | | ST28 | 1 | 1416 | | | |
| | | | 108696 | 146 | | | |
| | | | 110768 | 62 | | | |
| | | | 118386 | 55 | | | |
| | | | 118966 | 68 | | | |
| | | | 121269 | 85 | | | |
| | | | 122827 | 1000 | | | |
| | | ST282 | 2 | 23 | | | |
| | | | 120410 | 10 | | | |
| | | | 120451 | 13 | | | |

| NCR: | Yes | / | Nο |
|------|-----|---|----|

WORK ORDER NON CONFORMANCE / HIDDATE

| | | | | | | | | | | | DQA: | Date: | <u> </u> |
|---|-----|--|---|------|--------|--|-----|--|--|------------|--|-----------------|--|
| NCR: Y | 'es | / No | | | | WORK ORDER NON- | COI | VFORM | AANCE / UP | DATE | | | A . • • • |
| | | | | ÷ | | | | | | | QA Closed: | Date: | • |
| Nork Orde | er: | | | | | DISPOSITION | | | | AGAINST DE | PARTMENT | /PROCESS | · |
| Part N | lo. | | | | | Rework Scrap Use-as-is Work Order Update | | f Therm | Skid-tube Crosstube Water Jet Machining Small Fab Prod. Eng. Coor. Permoforming Finishing Rec/Store/Packaging Supplier Composite Supplier | | | | Engineering Quality Other |
| Root | | | | | Descri | ption of work order update | | Initial | Act | ion | Sign & | | |
| Cause | | Date | Step | Qty | | or Non-conformance | Ch | nief Eng | Descr | iption | Date | Verification | QC Inspector |
| oc/Data quip/Tooling perator flaterial etup other rocess upplier training | | • | | | | | | | | | | | |
| | | | | | | | AUI | LT CATE | GORY | | | | |
| Landi | | Bending Centre No Cracks Crushed/C Cuffs Heat Trea Inspection Ripples in Torque W Turning Se | Crimped. It In Strip in I Bend Vaves in E | Tube | | General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish | | Instruct Mainte Mislabe Misread Offset Out of 0 | on Incomplete ions Incomplete/U nance led | Jnclear | Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned N Power Loss/ | ct issing Wrong | Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other |
| i | | Wave/Tw | ist in Tub | e | 1 | Folio | | Outside | Dimensions | | | | Ĩ |

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

, Picklist Print

September-26-12 3:26:21 PM

| Work Order ID: | 90777 | | | | | <u></u> | |
|-------------------|-----------------------------------|----------|----------|---------|------------|------------------|-------------------------|
| Parent Item: | D350-636-016 | | | | Start | Date: 9/26/12 | Required Date: 10/19/12 |
| Parent Item Name: | Skidtube STD w/ Training Wearplat | es, RH | | | | Qty: 1.00 | Required Qty: 1.00 |
| AN8C35A BOLT | Purchased | No | | 230 Eac | h 29.0000 | 1 H | 1 ulioliz |
| | | <u>L</u> | ocation | Loc Qty | Loc Code | | |
| | | FC | G | 5 | | | |
| | | | 121275 | 5 | | | • |
| , | | FI | P002 | 23 | | | - |
| | | | 115960 | 1 | | | s. |
| | | | 121275 | 22 | | V | - |
| | | S | Г346 | 1 | | | - |
| | | | 114442 | 0 | | | |
| | | | 115188 | 0 | | | |
| | | | 115960 | 1 | | | |
| AN6C44A BOLT | Purchased | No | | 230 Eac | h 112.0000 | 4 HL | 4 11/10/12 |
| | | <u>L</u> | ocation_ | Loc Qty | Loc Code | | |
| | | FC | 3 | 2 | | | |
| | | | 103964 | 2 | | | |
| | | ST | Γ340 | 40 | | | |
| | | | 122491 | 40 | | | |
| | | ST | Г341 | 50 | | | |
| | | | 122843 | 50 | | VL | |
| | | ST | Г343 | 20 | | | |
| • | | 0, | 121013 | 11 | | | |
| | | | 122204 | 9 | | | |

| | | | | | | | | | | | DQA: | 'Date: | , | | |
|---|--|----------|-------------|-----|--------|---------------------------------------|----------|------------------------------|-------------------------------|---------------------|-------------|------------------|--------------------|--|--|
| NCR: \ | ⁄es | / No | | | | WORK ORDER NON-C | 100 | NFORM | MANCE / UP | DATE | • | | | | |
| | | , | | | | | | | | | QA Closed: | Date: | | | |
| M - 1 0 - 1 | | | | | | DISPOSITION | | | | AGAINST DE | PARTMENT | PROCESS | • | | |
| Work Orde | er: | - | | | | P | 1 | | Skid-tube Crosstube Water Jet | | | | | | |
| Dowt N | ما ، | | | | | Rework | | | Skid-tube | Crosstube | Dro | H | Engineering | | |
| Part No. Scrap Machining Small Fab Use-as-is Thermoforming Finishing | | | | | | | 4 | d. Eng. Coor. e/Packaging | Quality Other | | | | | | |
| NCR N | No. | | | | | Use-as-is Work Order Update | 1 1 | | Large Fab | Finishing Composite | 1 Kec/3101 | Supplier | | | |
| NCK | NO. | | | | | Work Order opdate |] | | carge rab | composite |] | Jupphen | | | |
| Root | | | | | Descri | ption of work order update | П | Initial | Ac | tion | Sign & | | | | |
| Cause | | Date | Step | Qty | | or Non-conformance | Ch | ief Eng | Desc | ription | Date | Verification | QC Inspector | | |
| Doc/Data | | | | | | · · · · · · · · · · · · · · · · · · · | | | - | | | | | | |
| Equip/Tooling | | | | | | | | | • | | | | | | |
| Operator | | | | | | | | | | | | | | | |
| Material | | | | | | | | | | | | | | | |
| Setup | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | |
| Process | | | | | | | | | | | | | | | |
| Supplier | | | | | | | | | | | | | | | |
| Training | | | | | | | | | | | | | | | |
| Unapproved | | | | | | | | | | | | | | | |
| | | | | | | F. | AUI | T CATE | GORY | | | | | | |
| Landi | ng (| Gear | | | | General | | _ | | | _ | | _ | | |
| | | Bending | | | | Bend | | Grain | | | Ovalized | | Pressure/Forced | | |
| | Centre Not Concentric to O/S BOM/Route | | | | | | Hardware | | | Over/Under | tolerance | Temperature/Cure | | | |
| | | Cracks | ├ ─┪ | | | | | Inspection Incomplete Pa | | | | ct | Weld | | |
| | | Crushed/ | Crimped. | | | Burrs Instructions Incomplete/Unclea | | | | Unclear | Part Lost/M | issing | Wrong Stock Pulled | | |

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Part Moved

Positioned Wrong

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cuffs

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

September-26-12 3:26:21 PM

| Work Order ID: | 907 77 | | | | | | | | |
|-------------------------|-------------------|------------------------|-------------|------------------|----------|-------|-------------|--------------|-------------------------|
| Parent Item: | D350-636-016 | | | | | | Start D | ate: 9/26/12 | Required Date: 10/19/12 |
| Parent Item Name: | Skidtube STD w/ T | Training Wearplates, I | RH | | | | Start (| Qty: 1.00 | Required Qty: 1.00 |
| MS21083C8 NUT | | Purchased | No | | 230 | Each | 53.0000 | 1 11 1 | 12/10/12 |
| | • | | Loca | tion | Loc Qty | | Loc Code | | |
| | | | 318 | | 29 | | | | |
| | | | | 122452 | 29 | | | | |
| | | | FP00 | 2 | 1 | | | | |
| | | | | 115884 | 1 | | | | |
| | | | ST30 | | 4 | | | | |
| | | | | 115884 | 0 | | | <u> </u> | |
| | | | | 118077 | 1 | | | | |
| | | | | 119309 119638 | 2 | | | | |
| | | | ST32 | | - | | | | |
| | | | 3132 | 122141 | 19 19 | | | | |
| D3631-1 | | Manufactured | No | 122141 | 230 | Each | 135.0000 | 8 , 8 | |
| Washer | | Manufactured | 110 | | 250 | Lacii | 133.0000 | 8 24 8 | 11/10/17 |
| | | | <u>Loca</u> | <u>tion</u> | Loc Qty | | Loc Code | | |
| | | | FG | | 28 | | | | |
| | | | | 81874 | 2 | | | | |
| | | | | 83588 | 26 | | | | |
| | | | FP-A | | 92 | | | | • • |
| | | | | 89277 | 92 | | | × & | |
| | | | ST07 | 2 | 15 | | | | |
| | | | | 68062 | 2 | | | | |
| | | | | 75548 | 13 | | | | |
| AN960C10L washer | NAS1149C0332R | Purchased | No | | 230 | Each | 21.0000 | 4 M 4 | 12/10/17 |
| | | | Loca | tion | Loc Oty | | Loc Code | | |
| | | | ST | | 21 | | | VU | |
| | | | | 107534 | 21 |) | 1123218 | | |

| NCR: Y | NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE · · · . | | | | | | | | | | | | | | | |
|--------------------|---|------------|----------|--------------|-------------|-----|--|--------------------|---|-------------------|----------|--------------|--------------|--------------------|--|--|
| | | | | | | | | | | | | QA Closed | Date | : | | |
| Work Orde | er: _ | | | | | | DISPOSITION | | AGAINST DEPARTMENT/PROCESS | | | | | | | |
| Part N | - | , | | | | | Rework Scrap Use-as-is Work Order Update | | Skid-tube Crosstube Water Jet Engineer Machining Small Fab Prod. Eng. Coor. Qua Thermoforming Finishing Rec/Store/Packaging Oth Large Fab Composite Supplier | | | | | | | |
| | | | | | | | | | | | | _ | | | | |
| Root | | _ | _ | | Des | • | otion of work order update | | nitial | Acti | | Sign & | | | | |
| Cause | | Date | Step | Qty | | 0 | r Non-conformance | Ch | ief Eng | Descri | ption | Date | Verification | QC Inspector | | |
| oc/Data | | | | | | | | | | | | | | | | |
| quip/Tooling | | | | | | | | | | | | | | | | |
| perator | | | | | | | | | | | | | | | | |
| /laterial | \dashv | | | | | | | | | | | | | | | |
| etup | \dashv | | | | | | | | | | | İ | | | | |
| Other | | | | | | | | | | | | | | | | |
| rocess | \dashv | | | | | | | | | | | | | | | |
| upplier raining | \dashv | • | | | | | | | | | | | | | | |
| Inapproved | ᅥ | | | | | | | | | | | | | | | |
| mapproved | | | | <u> </u> | | | F. | <u>L</u> Δ111 | T CATE | I | | _1 | | | | |
| Landir | ne G | iear | | | | | General | 101 | CAIL | | | | · | | | |
| | | Bending | | | ſ | - 1 | Bend | Г | Grain | | Γ | Ovalized | Γ | Pressure/Forced | | |
| · | $\overline{}$ | Centre No | t Concer | ntric to (| o/s | | BOM/Route | \vdash | Hardwa | re | - | Over/Unde | r tolerance | Temperature/Cure | | |
| ľ | | Cracks | | | | - | Broken/Damaged | \vdash | | on Incomplete | - | Part Incorre | | Weld | | |
| | _ | Crushed/0 | Crimped | | ł | | Burrs | | 1 | ions Incomplete/U | nclear | Part Lost/N | | Wrong Stock Pulled | | |
| İ | | Cuffs | | | Ì | | Contamination | \vdash | Mainte | • | | Part Moved | | | | |
| | | Heat Trea | t | | Ì | | Countersink | ┢ | Mislabe | | | Positioned | | | | |
| İ | | Inspection | | Tube | | | Cut Too Short | | Misread | | <u> </u> | Power Loss | | Other | | |
| | \neg | Ripples in | | - | | | Drill Holes | Offset | | | | | 1 | | | |
| l | - | Torque W | | xtrusio | n | | Drawing ' | Out of Calibration | | | | | | | | |
| | _ | Turning Se | | | | | Finish | | 1 | Sequence | | | | | | |
| | | Wave/Twi | - | | | | Folio | Outside Dimensions | | | | | | | | |

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

September-26-12 3:26:21 PM

| Work Order ID: | 90777 | | | | | |
|-------------------------|-------------------------------------|-----------------|--------------------|---------------|------------------|-------------------------|
| Parent Item: | D350-636-016 | | | Star | t Date: 9/26/12 | Required Date: 10/19/12 |
| Parent Item Name: | Skidtube STD w/ Training Wearplates | , RH | | Sta | rt Qty: 1.00 | Required Qty: 1.00 |
| D2745 Bushing | Manufactured | No | 230 | Each 134.0000 | 8 JU ! | nlioln |
| | | Location | Loc Qty | Loc Code | | |
| | | FP | 130 | | | |
| | | 795 | 18 6 | | | |
| | | 854 | 16 12 | | | |
| | | 868 | 70 32 | | $_{\checkmark}a$ | |
| | | 875 | $\overline{27}$ 40 | | ^6 | |
| | | 893 | 03 40 | | | |
| | | FP001 | 4 | | | |
| | | 695 | 29 1 | | | |
| | | 761 | 42 1 | | | |
| | | 832 | 60 2 | | | |
| NAS1149C0832R WASHER | Purchased | No | 230 | Each 418.0000 | 1 JU | 1 11/10/12 |
| | | Location | Loc Qty | Loc Code | | |
| | | 296 | 200 | | | |
| | | 122 | | | | |
| | | ST297 | 218 | | | |
| | | 114 | | | -V(| |

| NCR | Yes | / | Nο |
|-----|-----|---|----|

| NCR: | Yes | / No | | | | WORK ORDER NON- | OI | VFORM | MANCE / UP | DATE | DQA: QA Closed: | | | | | |
|--|-------|---|---|------|--------|--|--------------------|--|--|----------|--|------------------|--|--|--|--|
| Nork Ord | or. | | | | | DISPOSITION | | AGAINST DEPARTMENT/PROCESS | | | | | | | | |
| Part NCR | No. | | | | | Rework Scrap Use-as-is Work Order Update | | Skid-tube Crosstube Water Jet Engine Machining Small Fab Prod. Eng. Coor. Thermoforming Finishing Rec/Store/Packaging Composite Supplier | | | | | | | | |
| Root | | | | | Descri | ption of work order update | | Initial | Ac | tion | Sign & | | | | | |
| Cause | | Date | Step | Qty | (| or Non-conformance | Ch | nief Eng | Desc | ription | Date | Verification | QC Inspector | | | |
| oc/Data quip/Tooling perator flaterial etup other rocess upplier raining | | , | | | | F | AUI | LT CATE | GORY | | | | | | | |
| Land | ing (| Gear | | | | General | | | <u></u> | | | | | | | |
| | _ | Bending Centre No Cracks Crushed/o Cuffs Heat Trea Inspection Ripples in Torque W Turning S | Crimped. It In Strip in Bend Vaves in E | Tube | | Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish | | Instruct Mainte Mislabe Misread Offset Out of O | ion Incomplete ions Incomplete/ enance eled | 'Unclear | Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/ | ct sissing Vrong | Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other | | | |
| | | Wave/Tw | | | | Folio | Outside Dimensions | | | | | | | | | |

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. Picklist Print

September-26-12 3:26:21 PM

| Work Order ID: | 90777 | | | | | | | | , |
|-------------------------|-----------------|----------------------|----------------|------------------|------------|------|------------|------------------|-------------------------|
| Parent Item: | D350-636-016 | | | | | | Start Da | ate: 9/26/12 | Required Date: 10/19/12 |
| Parent Item Name: | Skidtube STD w/ | Training Wearplates, | RH | | | | | 2ty: 1.00 | Required Qty: 1.00 |
| AN3C6A BOLT | | Purchased | No | | 230 | Each | 1,135.0000 | 4 14 4 | 11/10/17 |
| | | | <u>Locatio</u> | <u>n</u> | Loc Oty | | Loc Code | | |
| | | | FG | | 10 | | | | |
| | | | | 122416 | 10 | | | | |
| • | | | FP001 | | 1 | | | | |
| | | | | 111982 | 1 | | | | |
| | | | ST351 | | 1124 | | | | |
| | | | 5.551 | 111982 | 2 | | | | |
| | | | | 116419 | 23 | | | - | |
| | | | | 116549 | 2 | | | | |
| | | | | 116704 | 12 | | | | |
| | | | | 117619 | 10 | | | | |
| | | | | 117688 | 1 | | | | • |
| | | | | 117872 | 5 | | | | |
| | | | | 118422 | 13 | | | | |
| | | | | 119449 | 21 | | | | |
| | | | | 120423 | . 3 | | | | |
| | | | | 120693 | 38 | | | | |
| | | | | 121682 | 4 | | | | |
| | | | | 122416 122599 | 490 | | | X ~) | |
| 1821043-6 IUT | | Purchased | No | 122399 | 500 230 | Each | 462.0000 | 4 14 4 | 11/10/12 |
| | | | Locatio | <u>n</u> | Loc Qty | | Loc Code | | |
| | | | FG | | 20 | | | | |
| | | | | 103693 | 20 | | | | |
| | | | ST301 | | 442 | | | | |
| | | | 31301 | 117887 | 2 | | | - | |
| | | | | 120308 | 440 | | | XL | |

| NCR: Ye | s / | No |
|---------|-----|----|
|---------|-----|----|

| | | | | | | | | | | DQA: | Date: | |
|--------------|--|---------------|-----------|----------|---|----------|----------|--|---|--------------|---|---------------------------|
| NCR: Y | : Yes / No WORK ORDER NON-CONFORMANCE / UPDATE | | | | | | | | | | | |
| | | | | | | | | | | QA Closed: | Date: | |
| Work Orde | ar. | | | | DISPOSITION | | | | AGAINST DE | PARTMENT | /PROCESS | |
| Part N | Part No. NCR No. | | | | Rework Scrap Use-as-is Work Order Update | | Therm | Skid-tube Machining noforming Large Fab | Crosstube Small Fab Finishing Composite | -1 | Water Jet d. Eng. Coor. re/Packaging Supplier | Engineering Quality Other |
| Root | | | | Descr | ription of work order update | | Initial | Act | tion | Sign & | | |
| Cause | Date | Step | Qty | | or Non-conformance | Cł | nief Eng | Descr | ription | Date | Verification | QC Inspector |
| Doc/Data | _ | | 1 | | | | | | | | | |
| quip/Tooling | | } | | | | | | | | | | |
| Operator | | | | | | | i | | | | | |
| Material | | | | | | | | | | | | |
| Setup | | | | | | | ľ | | | | | |
| Other | | | | | | | ĺ | | | | | |
| Process | | | | | | | ļ | | | | | |
| Supplier | _ | | | | | | l | | | | | [|
| Training | _ | | | | | | | | | | | |
| Jnapproved | | l | <u> </u> | <u> </u> | | | | | | 1 | | |
| | | | | | | FAUI | LT CATE | GORY | | | | |
| Landii | ng Gear | | | _ | General | _ | 7 | | _ | 7 | | , |
| | Bendir | - | | _ | Bend | | Grain | | <u> </u> | Ovalized | | Pressure/Forced |
| | _ | Not Conce | entric to | o/s | BOM/Route | <u> </u> | Hardwa | | <u> </u> | Over/Under | ļ | Temperature/Cure |
| | Cracks | | | <u> </u> | Broken/Damaged | \perp | ┥ | ion Incomplete | <u> </u> | Part Incorre | | Weld |
| | | d/Crimped | l. | <u> </u> | Burrs | \perp | -1 | tions Incomplete/l | Jnclear | Part Lost/M | | Wrong Stock Pulled |
| | Cuffs | | | L | Contamination | <u> </u> | Mainte | | <u> </u> | Part Moved | | |
| , | — Heat T | | | L | Countersink | \perp | Mislabe | | | Positioned V | | , |
| | | tion Strip ir | 1 Tube | L | Cut Too Short | L | Misread | t | | Power Loss/ | 'Surge | Other |
| İ | | in Bend | | L | Drill Holes | <u> </u> | Offset | | | | | |
| | | Waves in | | n | Drawing | _ | 4 | Calibration | | | | |
| | - i | g Sequence | | | Finish | | Out of S | Sequence | | | | |
| | Wave/ | Twist in Tu | be | | Folio | - | Outside | Dimensions | | | | |

September-26-12 3:26:21 PM

| Work Order ID: Parent Item: Parent Item Name: | 90777 D350-636-016 Skidtube STD w/ 7 | Fraining Wearplates, 1 | рu | | | | | | Date: 9/2 | | Required Date: 10/19/12 |
|---|--|------------------------|----|----------------|----------|---------|------|----------|-----------------|-----------|-------------------------|
| | Skidiube 31D w/ | | | | | | | | Qty: 1.0 | U | Required Qty: 1.00 |
| 03493-1 | | Manufactured | No | | | 250 | Each | 37.0000 | 2 | -2 | \subseteq |
| Washer | | | | | | | | | - | - St |) · |
| | * | | | Locatio | <u>n</u> | Loc Qty | | Loc Code | | | |
| | | | | ST050 | | 37 | | | | | |
| | | | | | 77573 | I | | | | | |
| | | | | | 82023 | 2 | | | | | |
| | | | | | 83097 | 34 | | | | 2x | |
| 4S21083C8 Nut | | Purchased | No | | | 250 | Each | 53.0000 | 2 |) 1 2 | 12/10/12 |
| | | | | Locatio | <u>n</u> | Loc Qty | | Loc Code | | | |
| | | | | 318 | | 29 | | | | | |
| | | | | | 122452 | 29 | | | | | |
| | | | | FP002 | | 1 | | | | | |
| | | | | | 115884 | 1 | | | | | |
| | | | | ST303 | | 4 | | | - | | |
| | | | | | 115884 | 0 | | | | | |
| | | | | | 118077 | 1 | | | | | |
| | | | | | 119309 | 2 | | | | | |
| | | | | | 119638 | 1 | | | | | |
| | | | | ST321 | | 19 | | | | | |
| | | | | | 122141 | 19 | | | | ×2 | |
| N8C21A SOLT | | Purchased | No | | | 250 | Each | 41.0000 | 2 | <u></u> 2 | 11/10/12 |
| | | | | Location | <u>1</u> | Loc Qty | | Loc Code | | | |
| | | | | ST341 | | 25 | | | | | |
| | | | | | 122519 | 25 | | | | | |
| | | | | ST343 | | 16 | | | | | |
| | | | | | 118758 | .0 | | | | | |
| | | | | | 122204 | 15 | | | | X 7 | |

| | | | | | | | | | | | | DQA: | Date | 5: | • |
|-------------------|------|------------|------------|--|--------|--|-----|--------------|------------------|---|----|--------------|---------------------------|--------|--------------------|
| NCR: | Yes | / No | | | | WORK ORDER NON- | COI | VFORM | MANCE / UP | DATE | | • | | - | * * * * |
| | | - | | | | | | | - | | | QA Closed: | Date | e:_ | 4 |
| Work Ord | er: | | | | | DISPOSITION | | | | AGAINST | DE | PARTMENT | PROCESS | | • |
| Part No. NCR No. | | | | Rework Scrap Use-as-is Work Order Update | | Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite | | | | Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier | | | Engineering Quality Other | | |
| Root | | | | | Descri | ption of work order update | T | Initial | Ac | tion | | Sign & | | | |
| Cause | | Date | Step | Qty | (| or Non-conformance | Cr | ief Eng | Desc | ription | | Date | Verification | | QC Inspector |
| Doc/Data | | | | | | | | | | | | | | | |
| Equip/Tooling | | , | | | | | | | | | | | | ļ | |
| Operator | | | | | | | | | | | | | | | |
| Material | | | 1 | | | | | | | | | | | | |
| Setup | | | | | | | 1. | | · | | | | | | |
| Other | | | | | | | | | | | | | | | |
| Process | | | | | | | 1 | | | | | | | | |
| Supplier | | | | | ļ | | | | | | | | | | |
| Training | | | | | | | | | | | | | | | |
| Unapproved | | | | | | | | | | | | | | | |
| | | | | | | F | AUI | T CATE | GORY | | | | | | |
| Landi | ng G | Gear | | | | General | | _ | | | | _ | _ | | |
| | | Bending | | | | Bend | | Grain | | | | Ovalized | | | Pressure/Forced |
| | | Centre No | ot Concer | ntric to | o/s | BOM/Route | | Hardwa | re | | | Over/Under | tolerance | | Temperature/Cure |
| | | Cracks | | | | Broken/Damaged | | Inspecti | on Incomplete | | | Part Incorre | ct | | Weld |
| | | Crushed/ | Crimped. | | | Burrs | | Instruct | ions Incomplete/ | Unclear | | Part Lost/Mi | ssing | \neg | Wrong Stock Pulled |
| | | Cuffs | | | | Contamination | | Mainte | enance | | | Part Moved | _ | | |
| | | Heat Trea | t | | | Countersink | | Mislabe | eled | | | Positioned V | Vrong | | |
| | | Inspection | n Strip in | Tube | | Cut Too Short | | Misread | i | | | Power Loss/ | | \neg | Other |

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Power Loss/Surge

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

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Page 15

Work Order ID:

90777

Parent Item:

D350-636-016

Parent Item Name:

Skidtube STD w/ Training Wearplates, RH

D2741

Blade, 350 Skidtube

Manufactured

Start Date: 9/26/12

Required Date: 10/19/12

Start Qty: 1.00

Required Qty: 1.00

| | 250 | Each 66.0000 | 1 411 11/10/12 |
|-----------------|---------|--------------|----------------|
| Location | Loc Qty | Loc Code | |
| FG | 2 | | |
| 85480 | 2 | | |
| ST | -10 | | |
| ST466 | 74 | | |
| 71856 | 1 | | |
| 85480 | 23 | | |
| 88824 | 40 | | <u> </u> |

66.0000

250

Each

| | | | | | | | | | | DQA | Date: | • |
|-------------------------|------|------------|-------------|----------|-----|-----------------------------|---------|----------|-------------------------|--------------|----------------|--------------------|
| NCR: | /es | / No | | | | WORK ORDER NON-C | O | NFORM | MANCE / UPDATE | | | |
| | | | | | | | | | • | QA Closed | : Date: | |
| Work Order: DISPOSITION | | | | | | | | | AGAINST | DEPARTMEN | /PROCESS | |
| vvoik Oiu | -1. | | | | | Rework | 1 | | Skid-tube Crosstube | | Water Jet | Engineering |
| Part N | lo. | | | | | Scrap | | | Machining Small Fab | | od. Eng. Coor. | Quality |
| | • | * | | | | Use-as-is | | | noforming Finishing | | re/Packaging | Other |
| NCR 1 | No. | | | | | Work Order Update | | | Large Fab Composite | | Supplier | |
| | | | | | | | | | | | | |
| Root | | | | | B . | iption of work order update | ı | nitial | Action | Sign & | | |
| Cause | | Date | Step | Qty | | or Non-conformance | Ch | ief Eng | Description | Date | Verification | QC Inspector |
| oc/Data | | | | | | | | | | | | |
| quip/Tooling | | | | | | | | | | | | |
| perator | - | | | | | | | | 4 | | | |
| Naterial | | | | | | | | | | | | |
| etup | | | | | | | | | | | | |
| Other | | | | | | | | | | | | |
| rocess | | | i | | | | j | | | | | |
| upplier raining | | | | | | | | | | | 1 | |
| Inapproved | | | | | | | | | | | | |
| | | | | L | I | F/ | AUL | T CATE | GORY | | | |
| Landi | ng (| Gear | | | | General | | | | | | |
| | | Bending | | | | Bend | | Grain | | Ovalized | | Pressure/Forced |
| | | Centre No | t Concer | ntric to | o/s | BOM/Route | | Hardwa | re | Over/Unde | r tolerance | Temperature/Cure |
| | | Cracks | | | | Broken/Damaged | | Inspecti | on Incomplete | Part Incorr | ect | Weld |
| | | Crushed/0 | Crimped. | | | Burrs | | Instruct | ions Incomplete/Unclear | Part Lost/N | 1issing | Wrong Stock Pulled |
| | | Cuffs | | | ļ | Contamination | | Mainte | enance | Part Move | t | |
| | | Heat Trea | t | | _ | Countersink | | Mislabe | eled | Positioned | Wrong | |
| | | Inspection | | Tube | | Cut Too Short | <u></u> | Misread | d | Power Loss | /Surge | Other |
| | | Ripples in | | | | Drill Holes | _ | Offset | | | | |
| | | Torque W | | | n | Drawing | L | i | Calibration | | | , |
| | | Turning Se | • | | _ | Finish | | ı | Sequence | | | |
| | | Wave/Twi | ist in Tub | oe - | | Folio | | Outside | Dimensions | | | : |

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Revision: I Date: 10.10.25

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DART AEROSPACE USA, INC. Figure 3: 2,3,4 4 PL, REF 18,19,20A,20B 14,15,17,17,15,16 4 PL (TOE STEP KIT) 5,6A,6A,7 97,98,98,99 (AN3 HARDWARE) 10,11,12 2 PL 2,3,4 4 PL, REF 80,81,81,82,83 (TOW RING KIT)
B - 31
8 PL 30 2.77 D350-636-015/-016/-017/-018/-215/-216/-217/-218 SKIDTUBE REF (70mm) REF REF • E SEE DETAIL G APICAL 30 REF 30 CYLINDRICAL FLOAT BAG 8 PL INSTALLATIONS 90 5,6A,6A,7 REF SHOP COPY RETURN TO T --S-91A,92,94,94,92,93 3 PL 91A,95,94,92,93 **ENGINEERING** UNCONTROLLED COPY 91B,95,94,92,93 (W/ APICAL FLOAT) SUBJECT TO AMENDMENT D350-636-015/-016/-215/-216 WITHOUT NOTICE (Aerazur/Apical Cylindrical) WORK ORDER 90777 MCJ 12-09-26 18,19,20A,20B (TOE STEP KIT) 5,6A,6A,7 14,15,17,17,15,16 4 PL 2,3,4 4 PL, REF 10,11,12 2 PL 97,98,98,99 (AN3 HARDWARE) 2,3,4 4 PL, REF 80,81,81,82,83 (TOW RING KIT) 2.77" (70mm) REF N-• • • SEE DETAIL G 32 8 PL APICAL TRI BAG 30 8 PL INSTALLATIONS **ASSEMBLY** IIN-D350-636 Page 13 of 31 90 5,6A,6A,7 REF U-S 91A,95,94,92,93 91A,92,94,94,92,93 3 PL 91C,92A,94A,94,92,93 (W/ APICAL FLOAT) D350-636-017/-018/-217/-218 (Aircruiser/Apical Tri-bag)

| į | QTY ,-041 | -042 | QTY -043 | -044 | PART NUMBER | DESCRIPTION |
|---|--------------|------|-------------|------|---------------|---------------------------|
| | Х | | Ĺ | | D4168-041 | 350 SKIDTUBE ASSEMBLY, LH |
| | | Х | | | D4168-042 | 350 SKIDTUBE ASSEMBLY, RH |
| | | Ĺ | X | | D4168-043 | 350 SKIDTUBE ASSEMBLY, LH |
| | | | | X | D4168-044 | 350 SKIDTUBE ASSEMBLY, RH |
| | | ١ | | | I | |
| | 1 | 1 | 1 | 1 | D2739 | WEB |
| | 8 | 8 | _ 8 | _8 | D2743 | SPACER |
| | 1 | 1 | 1 | 1 | D2744 | CAP |
| | 8 | 8 | 8 | 8 | D2745 | BUSHING |
| | 1 | | 1 | Ι. | D3488-041 | BLADE FITTING, LH |
| į | | 1 | | 1 | D3488-042 | BLADE FITTING, RH |
| | 4 | 4 | 4 | 4 | D3490-1 | SPACER |
| | 4 | 4 | | | D3490-3 | SPACER |
| | | | 4 | 4 | D3490-5 | SPACER |
| | 8 | 8 | 8 | 8 | D3492-041 | PLUG ASSEMBLY |
| Ì | 8 | . 8 | | | D3492-043 | PLUG ASSEMBLY |
| 1 | | | 8 | 8 | D3492-045 | PLUG ASSEMBLY |
| Ì | 8 | 8 | 8 | 8 | D3631-1 | WASHER |
| I | 7 | _ 7 | 7 | 7 | D3873-1 | BUSHING |
| I | 1 | 1 | 1 | 1 | D4154-041 | WEARPLATE ASSEMBLY |
| I | 1 | | | | D4168-1 | SKIDTUBE WELDMENT, LH |
| I | | 1 | | | D4168-2 | SKIDTUBE WELDMENT, RH |
| Į | | | _ 1 _] | | D4168-3 | SKIDTUBE WELDMENT, LH |
| 1 | | | | 1 | D4168-4 | SKIDTUBE WELDMENT, RH |
| I | 4 | 4 | 4 | 4 | D4170-1 | SPACER |
| ĺ | 11 | 1 | 1 | 1 | D4171-1 | BUSHING |
| l | | | | | | |
| ŀ | 4 | 4 | 4 | 4 | ALS4-1032-225 | INSERT |
| ļ | 4 | 4 | 4 | 4 | AN3C6A | BOLT |
| ļ | 1 | 1 | 1 | 1 | AN3C34A | BOLT |
| ١ | 4 | 4 | 4 | 4 | AN3C36A | BOLT |
| ŀ | 4 | 4 | 4 | 4 | AN6C44A | BOLT |
| ļ | 1 | 1 | 1 | 1 | AN8C35A | BOLT |
| ŀ | 9 | 9 | 9 | 9 | AN960C10 | WASHER (OR NAS1149CO363R) |
| ŀ | 4 | 4 | 4 | 4 | AN960C10L | WASHER (OR NAS1149CO332R) |
| ŀ | 1 | 1 | -1- | 1 | AN960C816L | WASHER (OR NAS1149CO832R) |
| ļ | 5 | 5 | 5 | 5 | MS21043-3 | NUT |
| ŀ | 4 | 4 | 4 | _4_ | MS21043-6 | NUT |
| ŀ | 1 | _1_ | 1 | 1 | MS21083C8 | NUT |
| L | 4 | _4 | 4 | 4 | NAS1515H3L | WASHER |

SHOP COPY RUHRNTO ENGINEERING UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER NO 90777 MCJ 12-09-26

| A | NEW IS | SUE | | sc | 10.08.09 |
|--------|--------|------|--|---|---|
| REV. | | | DESCRIPTION | BY | DATE |
| DESIG | N | SC | DART AEROSPA | ACE USA | . INC. |
| DRAW | N ' | SC | PORT HAD | | , |
| CHECK | ŒD | W | DRAWING NO. | | REV. A |
| MFG. A | PPR. | | D4168 | | SHEET 1 OF 11 |
| APPRO | VED | WA | TITLE | | SCALE |
| DE API | PR. | #- | 350 SKIDTUBE AS | SSEMBL | Y NTS |
| DATE | 10.0 | 8.09 | COPYRIGHT © 2010 BY DJ THS 900-MENT & PROVITE AND CONFOCYTIN, AND HIGH TO BE USED FOR ANY PURPOSE OR COPED OR WINTEN PERSONS ON FEAR | IS SUPPLIED ON THE EXPRES COMMUNICATED TO ANY OT | IS CONDITION THAT IT IS HER PERSON WITHOUT |

GENERAL NOTES:

MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).

MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).

FINISH:

CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.

POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3

BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).

TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

UNITS: INCHES UNLESS OTHERWISE NOTED

BREAK SHAPP EDGES: IN/A

IDENTIFICATION: NIA

WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS

WELD PER DART QSI 004

FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:

MINIMUM YIELD TENSILE STRENGTH = 35 KSI

MINIMUM VIELD TENSILE STRENGTH = 38 KSI

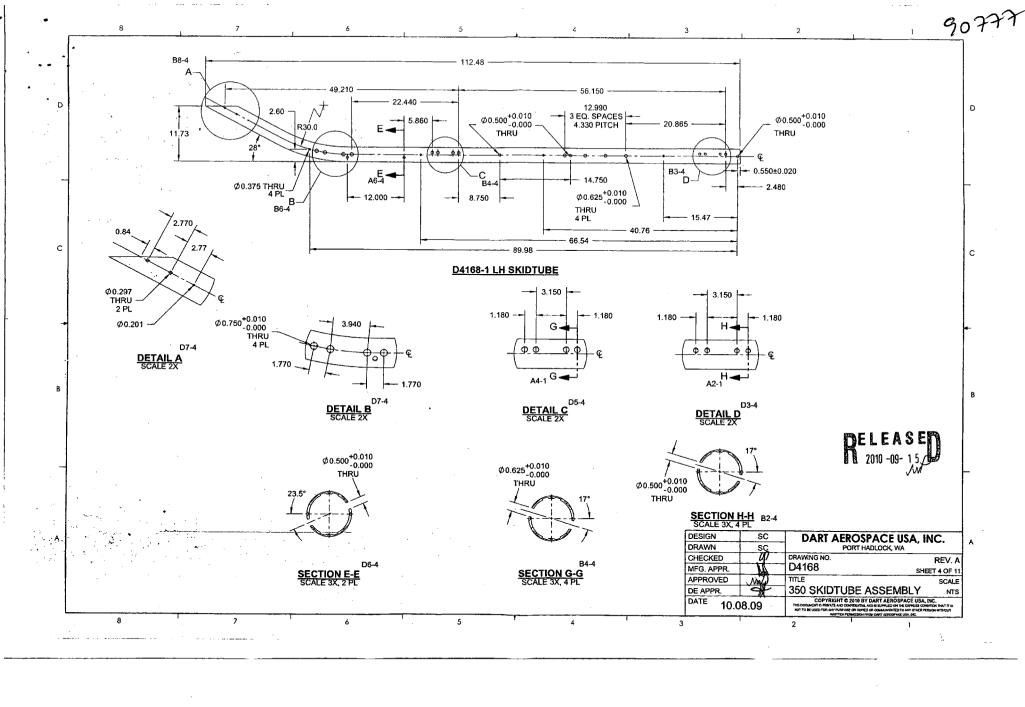
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

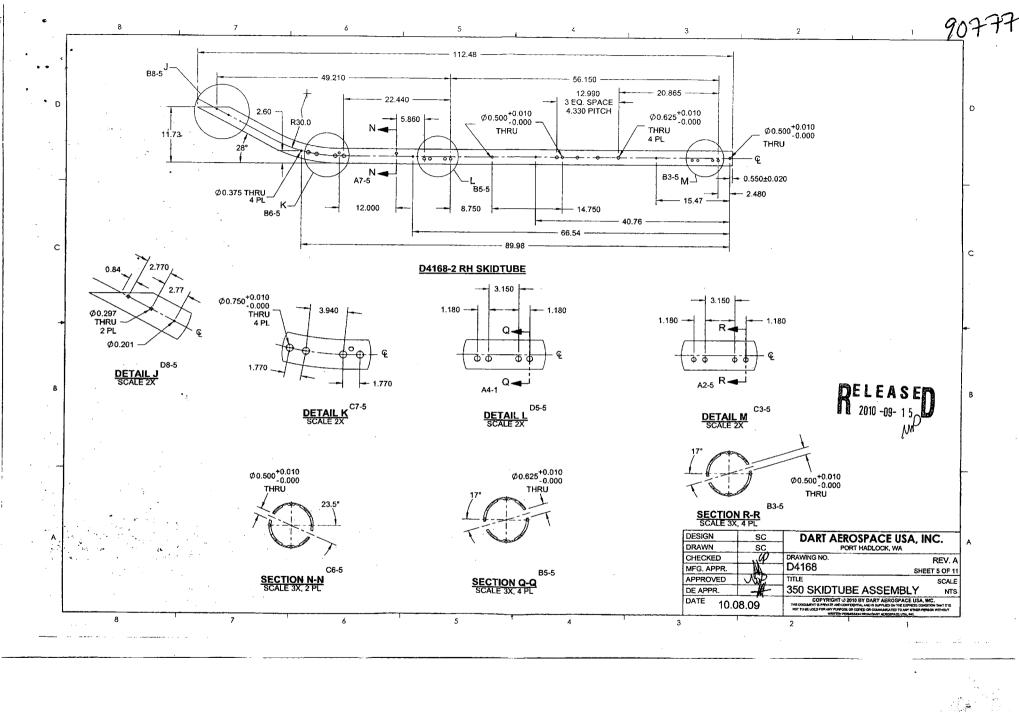
SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL

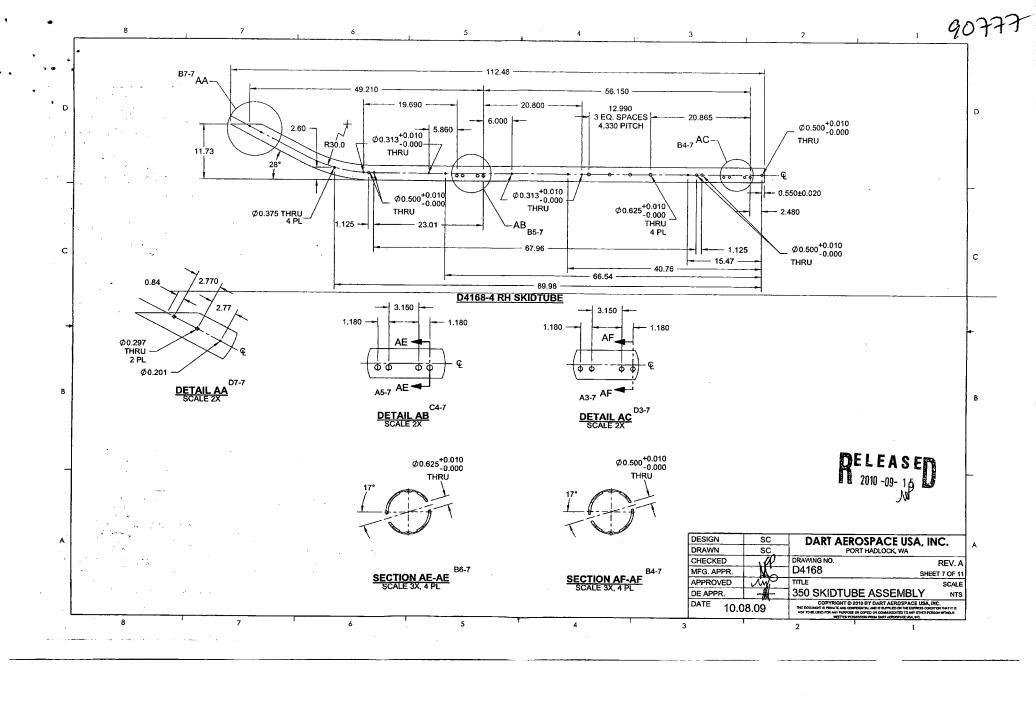
SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

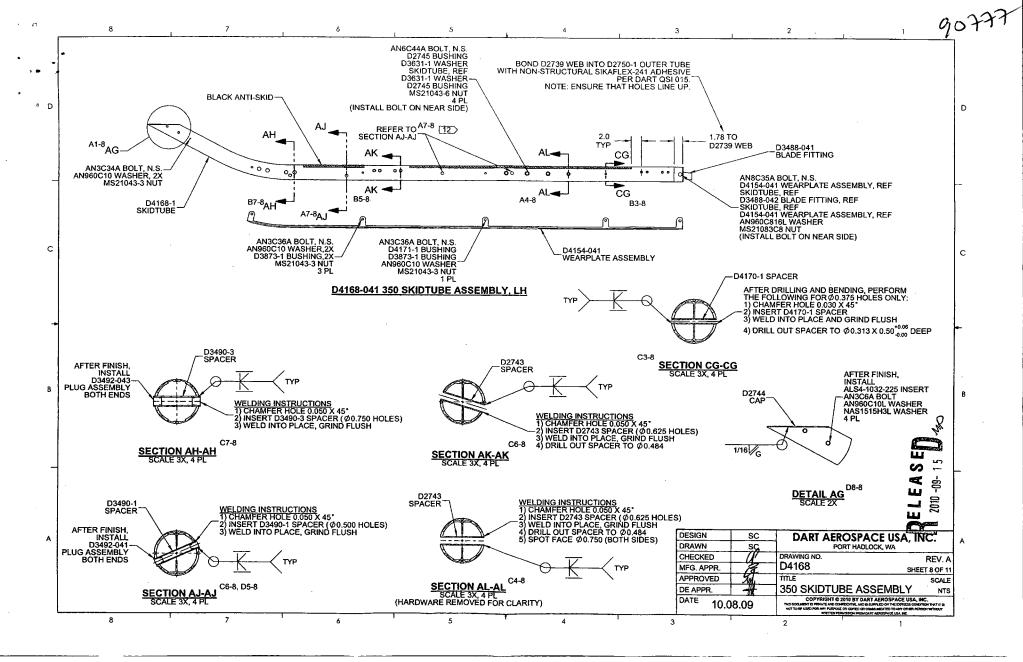
- 90777 D Ç С D4168-041 350 SKIDTUBE ASSEMBLY, LH D4168-042 350 SKIDTUBE ASSEMBLY, RH DESIGN DART AEROSPACE USA, INC.
PORT HADLOCK, WA DRAWN sc DRAWING NO. D4168 CHECKED REV. A MFG. APPR. SHEET 2 OF 11 TITLE APPROVED SCALE 350 SKIDTUBE ASSEMBLY DE APPR. DATE 10.08.09

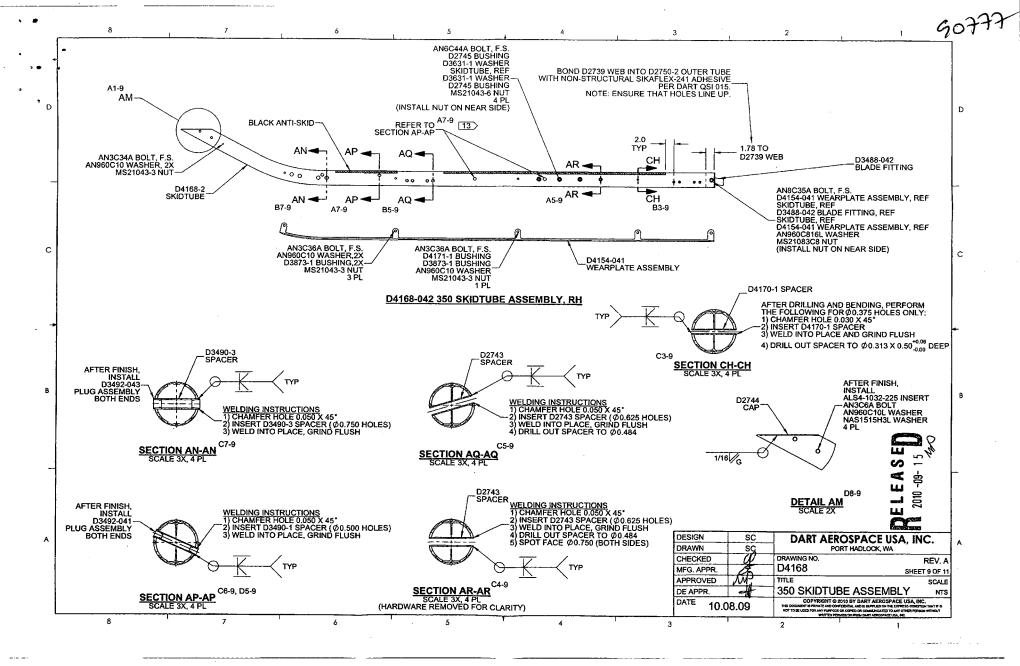
90777 D4168-043 350 SKIDTUBE ASSEMBLY, LH D4168-044 350 SKIDTUBE ASSEMBLY, RH RELEASED 2010 -09- 15 DART AEROSPACE USA, INC. DESIGN SC SC DRAWN DRAWING NO. D4168 CHECKED REV. A MFG. APPR. SHEET 3 OF 11 TITLE 350 SKIDTUBE ASSEMBLY APPROVED SCALE DE APPR. DATE 10.08.09

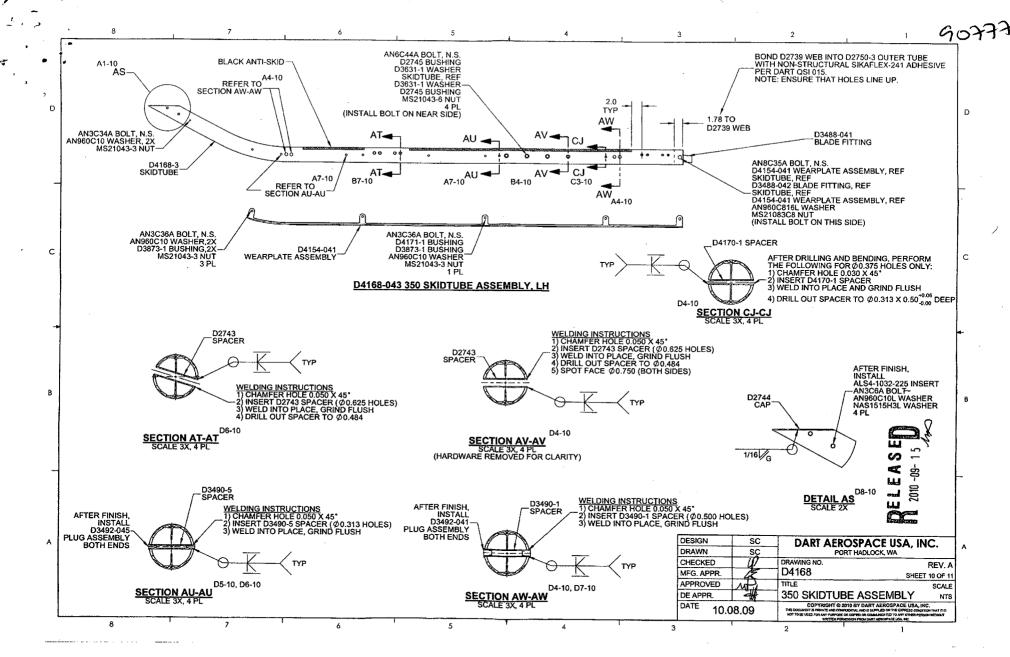




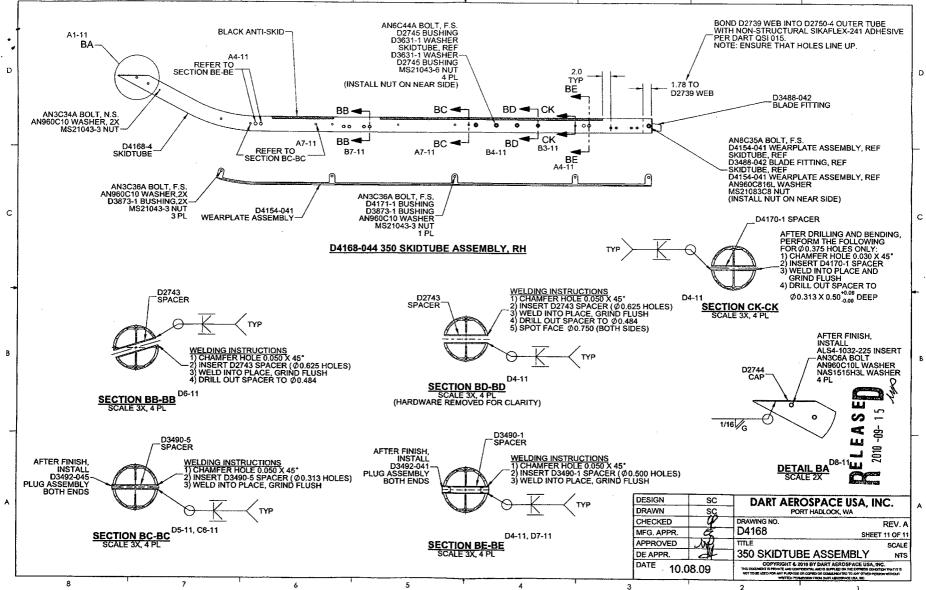


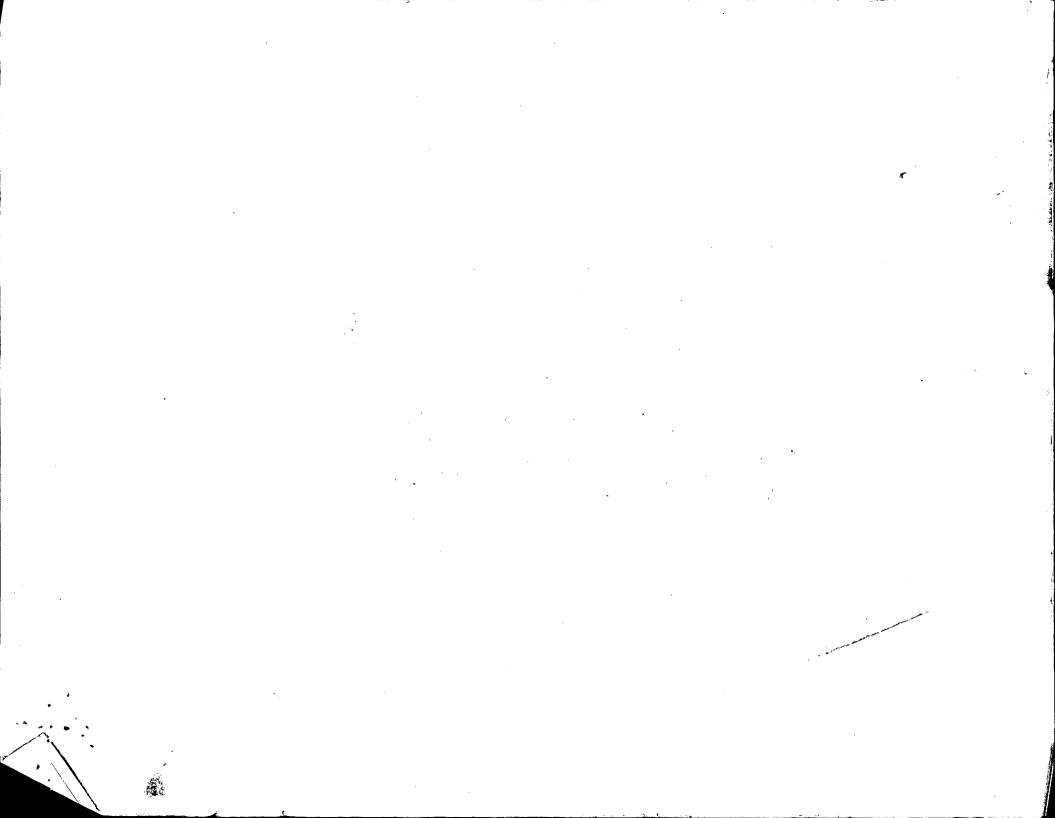






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NO. 300

AWS D17.1.2001 QUALIFICATION TEST RECORD

| Name: | Barday Elliott | |
|---------------|---------------------|---|
| Job #: | 87941 | |
| Part #: | 1350-636-011 | |
| Description:_ | Skid | |
| Welding Proc | cess: Tig[\ Mig[] | |
| Base materiel | l: Alum. | |
| Current: AC | C DC] | • |

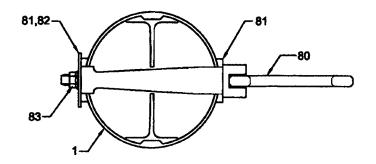
TEST REQUIREMENTS AND RESULTS

| Visual: pass | [] fail[] |
|------------------------------|-------------------|
| Incomplete Penetration: pass | ['] fail[] |
| Incomplete Fusion: pass | [1] fail[] |
| Cracks: pass | [/] fail[] |
| Overlap (cold lap) pass | ['] fail[] |
| Undercut: pass | ['] fail[] |
| Pin holes: pass | [1] fail[] |
| Porosity (surface): pass[| [] fail[] |
| Coloration: pass | |
| Burn through: pass | [fail[] |

Qualifier Date of Test Coupon 12.07.26

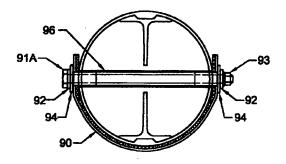
Welder Boxloy Ellwt Date of Test Coupon 12-07-24

The above named individual is qualified in accordance with AWS D17.1.2001 to weld



SECTION R-R

SHOWN WITH DRILLED Ø0.625" HOLE & **D350-636-109 TOW RING KIT**



SECTION S-S D350-636-015/-016/-017/-018/-215/-216/-217/-218 SKIDTUBES, 3 PL

5,6A,6A,7

10,11,12 2 PL

SEE DETAIL G APICAL

INSTALLATIONS

5,6A,6A,7 REF

CYLINDRICAL FLOAT BAG

5,6A,6A,7

10,11,12 2 PL

SEE DETAIL G APICAL TRI BAG INSTALLATIONS

5,6A,6A,7 REF

Figure 14,15,17,17,15,16 4 PL 97,98,98,99 (AN3 HARDWARE) 2,3,4 4 PL, REF 80,81,81,82,83 (TOW RING KIT) 30 2.77" (70mm) REF D350-636-015/-016/-017/-018/-215/-216/-217/-218 SKIDTUBE ASSEMBLY REF 8 PL 30 REF .0 0 E-30 30 8 PL REF 80 91A,92,94,94,92,93 3 PL 91A,95,94,92,93 OR 91B,95,94,92,93 (W/ APICAL FLOAT) D350-636-015/-016/-215/-216 (Aerazur/Apical Cylindrical) 18,19,20A,20B (TOE STEP KIT) 2,3,4 4 PL, REF 14,15,17,17,15,18 4 PL 97,98,98,99 (AN3 HARDWARE) OR 80,81,81,82,83 (TOW RING KIT) 2,3,4 · 4 PL, REF

8 PL

91A,92,94,94,92,93 3 PL

2,3,4 4 PL, REF

• •

91A,95,94,92,93

91C,92A,94A,94,92,93 (W/ APICAL FLOAT)

C

D350-636-017/-018/-217/-218 (Aircruiser/Apical Tri-bag)

18,19,20A,20B

(TOE STEP KIT)

2.77" (70mm) REF

30 8 PL

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Revision: Date: 10.10.25